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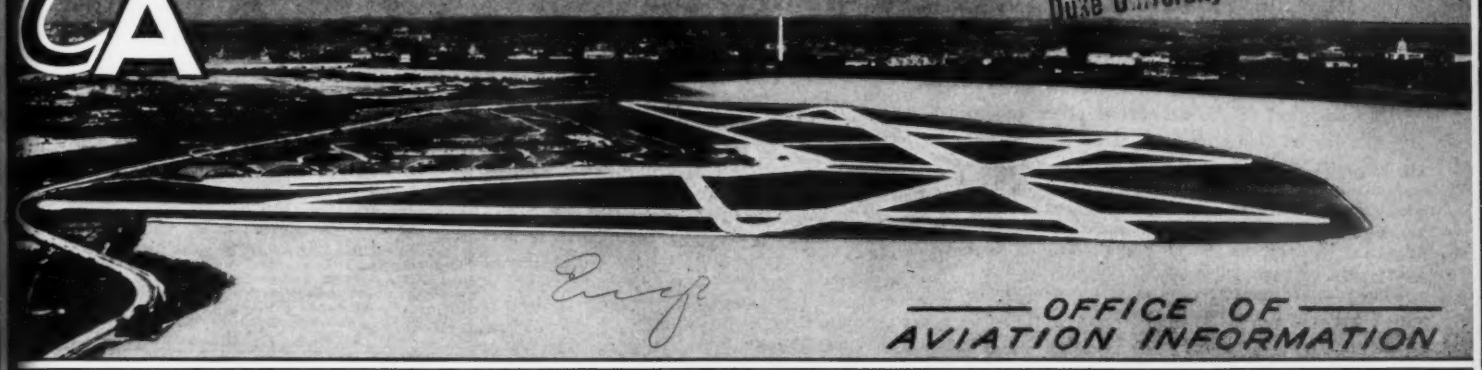

OFFICE OF AVIATION INFORMATION

Commission on Air Policy Submits Report to President

After consulting on all phases of aviation with the best-qualified Government and private sources, the President's Air Policy Commission submitted its report which was made public on January 13, 1948.

The Commission, appointed by the President and directed to prepare a report on national aviation policy, consists of five members: Thomas K. Finletter, chairman; George P. Baker, vice chairman; and Palmer Hoyt, John A. McCone, and Arthur D. Whiteside, members.

"Survival in the Air Age," the Commission's 166-page report, is on sale for 75 cents and may be purchased from the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C.

The official summary of the Commission's report, dated January 1, 1948, follows in full.

Section I.—Air Power and the National Security

The President's letter appointing the Commission requires us to recommend an integrated national air policy which (1) will protect the Nation's security to the greatest extent practicable and (2) will foster its economic and social interests.

We deal in this section with the problem of national security.

We believe that the United States will be secure in an absolute sense only if the institution of war itself is abolished under a regime of law. World peace and the security of the United States are now the same thing.

Even the most optimistic view of the record of the United Nations does not assure us that United Nations will develop in time the necessary authority to prevent another great war.

The United Nations cannot assure a permanent peace except on a foundation of free communication throughout the world.

Unilateral disarmament by the United States is out of the question.

The United States must have a double-barreled policy abroad. It must work to achieve world peace through support and development of the United Nations. And at the same time it must prepare to defend itself for the possibility that war may come. Not being able to count on absolute security under law, it must seek the next best thing—relative security under the protection of its own arms.

Relative security will be founded only in a policy of arming the United States so strongly (1) that other nations will hesitate to attack us or our vital national interests and (2) that if we are attacked, we will be able to smash the assault at the earliest possible moment.

A preparedness program will be extremely expensive. Eighty percent of the budget for the fiscal year 1948 is in payment for past wars and the maintenance of our present Military Establishment. Eighty-five

(*See Air Policy Report, page 16*)

President Truman Expresses Appreciation to Wright

Replying to Mr. Wright's letter of resignation, President Truman said:

"During the 7½ years which you have spent in Government service you have given unsparingly of your talents and time to help win the war and subsequently to develop a strong civil aviation industry. To war production activities you made a notable contribution, and it was my pleasure to award you the Medal for Merit in token of your distinguished work in that field.

"In the direction of the development of civil aviation as Administrator of the Civil Aeronautics Administration, you have continued to give outstanding service.

"It is with great regret, therefore, that I accept your resignation. I can understand, however, that you feel it to be necessary in view of the conditions outlined in your letter, and in view of the further opportunities for service to the people of the United States which you anticipate in connection with your new position.

"I appreciate and will take advantage of your expressed willingness to help the Government in an advisory capacity as occasion may demand."

Wright Resigns; Served 3½ Years As Administrator

T. P. Wright resigned last month as Administrator of Civil Aeronautics after serving as chief executive for civil aviation since September 20, 1944.

He gave up his Government post to become president of the Cornell Research Foundation and vice president of Cornell University. His major responsibility as head of the Research Foundation will be administrative supervision of Cornell's Aeronautical Laboratory at Buffalo.

In submitting his resignation to the President, Mr. Wright stated that he was leaving because of "my urgent need to increase my income substantially above the salary Congress appropriates for the position . . . the apparent unlikelihood of promotion or advancement . . . the very fine outside offers I have received."

Mr. Wright's letter to the President also commended the work of his associates in the Civil Aeronautics Administration. "The persons who compose the CAA," he said, "are a remarkably fine group of public servants, performing difficult tasks in the several fields of our agency in an effective and efficient manner, all in the public interest for the orderly advancement of civil aviation in this country and abroad."

Far-Sighted Policies.—During his three years as Administrator, Mr. Wright won universal respect for his far-sighted policies of leadership. A staunch believer in the possibility of developing personal flying into the most important segment of civil aviation, Mr. Wright sponsored the CAA development of castered landing gear, helped launch current research on reducing airplane noise, appointed personal flying development assistants in each CAA region, and convened an industry advisory committee representing all elements of nonscheduled flying.

He carried the Federal Air Airport Program from the idea stage through to legislation and now actual construction, stressing the part that thousands of new small airports could have in fostering personal flying.

An outstanding engineer in the field of aircraft design, Mr. Wright quickly grasped the intricacies of

(*See Wright Resigns, page 15*)

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President's Special Safety Board Releases Sixth and Final Report

Recommending that airlines appoint full-time safety directors and safety staffs and that other changes be made in order to prevent airline accidents, the President's Special Board of Inquiry on Air Safety submitted its sixth and final report, which has been released by the White House.

In addition to the numerous other recommendations designed to prevent accidents, the Board's report also summarized all action that has been taken so far to carry out the 56 safety recommendations made in the five previous reports.

Airline Safety Commended.—While praising the safety record of airlines as "eminently commendable," the Board's 125-page report said that the value of "centralization for the planning and providing for safety" had been proved in private industry, municipal governments, and other forms of transportation. Apart from appointing safety directors, airlines were advised to have all personnel concerned with safety meet regularly to consider safety problems. They were also told to provide better training for mechanics and co-pilots and to give autonomy to inspectors who check on the quality of repair work. "There are obvious dangers in permitting those who are responsible for maintenance to override the decision of inspectors on the quality of their work," the Board said.

The Special Board, which has been meeting since its appointment by the President last June 15, is headed by James M. Landis, formerly Chairman of the Civil Aeronautics Board. Dr. J. C. Hunsaker, Director of the National Advisory Committee for Aeronautics is its vice chairman. The other members are T. P. Wright, Administrator of Civil Aeronautics, Capt. H. B. Cox, an American Airlines' pilot and member of the Air Line Pilots' Association, and M. W. Arnold, vice president of the Air Transport Association of America, of which all airlines are members.

Arnold Dissents.—Mr. Arnold did not sign the report, but wrote his own dissent. He said the Board was not supposed to make any inquiry further than the three serious accidents that occurred last May and June. He nevertheless made certain recommendations for combatting fires, although fires were not the cause of the three accidents to which he said the Board should limit itself. His recommendations on this subject agreed substantially with those of the four members.

The President's letter appointing the Board, which is set forth in an appendix to the report, told it to "study the pertinent data and information relating to the program for safety in air transportation and the factors, both mechanical and human, which enter into safe operation." The members were told to study the three accidents, to which Mr. Arnold said the Board should restrict itself, "among other things," and to "consider also the way in which new equipment, already predictable, must be keyed to mechanical aids and human capabilities."

Acting on the President's broad mandate, the four majority members made recommendations for preventing and combatting fires, and on the manufacture, maintenance, repair, and inspection of aircraft, pilot and mechanic training and proficiency, and the need for research and development, among others.

The Board noted that its final recommendations called for broader action than the specific corrections it suggested last summer. The improvement of air safety, it said, "is a continuing problem" which will need "constant concentration by both industry and Government." It said that the greatest hopes for improvement lie in the "efficient discharge of the normal functions of the regularly constituted agencies, particularly those of the industry."

Aircraft Fire Protection.—Recognizing that aircraft fire protection is one of the greatest of aircraft hazards, the Board said "that aircraft fire protection can be conceived of in four phases. The first is elimination or reduction of fire hazards themselves. This is a problem both of aircraft design and of the development of safety fuels and noninflammable hydraulic fluids. The second is that of detection of fires. The need for immediate detection of fire in the air is far more essential than elsewhere. Due to the speeds at which aircraft travel and the currents of air thereby generated fire can spread with amazing rapidity. The third phase is the extinction of such fires as may occur, and the fourth phase is the confinement of fires that fail to be extinguished to a relatively harmless area permitting descent to safety."

In preventing aircraft fires, the Board stressed the importance of developing safety fuels and lubricants. Gas tanks presently used in airplanes were held to provide less safety than other types and manufacturers were advised to provide for change-over should further investigation warrant it. Compartments where fires may originate should be accessible for inspection and fire fighting, the Board added, and axes and other fire-fighting aids should be made mandatory on all aircraft. Regulations governing the carriage of inflammable articles in passengers' baggage were also advocated as was more thorough training of crews in methods of fighting fires.

The Board urged that high priority be given to full scale extinguishing tests now being conducted by the Civil Aeronautics Administration. Improved smoke and fire detectors and fire extinguishing agents are needed as well as effective compartmentalization to confine fires. The Board also said that pilots should be able to feather propellers after inflammable fluids are shut off and that secondary sources of power should be so designed to minimize points of combustion. It discouraged the introduction of new secondary sources unless primary sources of heat and power cannot be utilized fully.

Inspection and Maintenance.—Further changes in air lines are indicated in the recommendations that inspection procedures be separated from control of officials charged with other work and differences between inspection and maintenance be resolved only at high management levels. Prompter disposition of repairs called for by pilot complaints is also keynoted. The Board recommends that special mechanics' certificates be required to cover the repair of radio and electronic equipment which is coming into greater use in operations.

Air line efforts to bring about standardization of procedures and forms in maintenance and repair were praised and encouraged. The Board also expressed its approval of the principle behind a current proposal by the Civil Aeronautics Administration to issue scheduled air carrier maintenance certificate to air lines that demonstrate ability to take over maintenance and inspection functions in greater detail than at present. Such a plan would not only give air lines a greater degree of control over internal operations, the Board noted, but would make it possible for Government personnel to devote more time to purely safety matters. The Board also urged the Government to take a greater concern in the promotion and development of transport aircraft and to evolve more satisfactory standards for approving airworthiness than now exist.

Pilot Proficiency.—Pilot proficiency, morale, and training were treated separately in an entire section. The Board noted the desirability of being able to test the proficiency of pilots. A program designed to achieve this has been drawn up by the National Research Council and, at the Board's suggestion, was referred to regular government agencies since the Board now goes out of existence. In order to increase proficiency, airlines were told to provide more opportunities for on-the-job training for copilots, under adequate supervision.

Disputes about pilot proficiency affect morale and safety, the Board said, but they are capable of being settled simply and promptly. Noting that some disputes have been allowed to drag on in extended proceedings, the Board recommended they be submitted to arbitration as soon as possible. Board member Cox did not concur with this finding and will shortly submit a statement of his views.

Linking pilot morale with safety the Board noted the short working life of pilots due to stringent physical requirements and urged favorable consideration of adequate retirement and disability pension systems. For the same reason airlines and pilots were urged to review ratios of base pay to flight pay to arrange sufficient assured earnings.

Better Salaries Recommended.—Regulation and increase of compensation for airway and airport traffic control personnel were also recommended. The Board stressed their importance to safety and its belief that better salaries will keep more experienced personnel from leaving for other work.

The Board recommended that safety standards applicable to irregular carriers be elevated and that the law be changed to permit control of contract carriers. The need for such actions was underscored by a recent crash in Florida and forced landing of a flying boat at sea. Fuller reporting and analysis of near accidents were urged as sources of information useful in accident prevention.

Previous Action Listed.—Other sections of the report listed the record of action that already has been taken to carry out earlier recommendations of the Board. These actions include among others equipping aircraft with electronic altimeters, uniform maximum weight limitations, standardized minimum altitudes, higher flight altitudes over mountainous terrain during darkness and instrument flight, further tests and inspection of aircraft structures, the institution of several research projects, corrections for temperature in computing allowable weights, and requirements that wind have defined constancy when it is used to compute allowable weights.

The report also included an appendix setting forth certain principles of Government organization applicable to safety although the Board refrained from making specific recommendations for Government agency organization in view of its constituent membership.

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DEPARTMENT OF COMMERCE
W. Averell Harriman, *Secretary*

Civil Aeronautics Administration
T. P. Wright, *Administrator*
Ben Stern, *Asst. Administrator for Aviation Information*

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Administrator Wright Resigns After Serving 3½ Years with the CAA

(Continued from page 13)

aviation electronics, and took close personal interest in CAA development and installation of advanced air navigation aids. He emphasized cooperation with the armed forces to develop a program which would serve the differing needs of civil and military aviation at minimum cost.

Mr. Wright gave strong support to the idea of delegating responsibility for the details of safety regulation to the industry as rapidly as possible. To this end he initiated the system of technical standard orders, enlarged the use of industry "designees" in inspection work, and directed a program looking toward the ultimate certification of manufacturers rather than individual planes.

International-minded.—Always international-minded, Mr. Wright led CAA participation in the effort to solve the postwar problems of world flying. He served as Technical Secretary of the International Civil Aviation Conference at Chicago in 1944, and sparked CAA activities in the world organization which grew out of that gathering.

Concurrent with his service as Administrator, he has acted as vice chairman of the National Advisory Committee on Aeronautics, the Federal Government's agency for basic aviation research.

Educated at Lombard (now Knox) College and Massachusetts Institute of Technology, Mr. Wright's aviation career started during World War I, when he was commissioned in the U. S. Naval Reserve Flying Corps, leaving the service in 1921 as a lieutenant, junior grade.

Soon thereafter he became executive engineer of the Curtiss Aeroplane & Motor Co. In rapid succession he held the positions of assistant factory manager and assistant chief engineer. In 1925 he was made chief engineer of the company's airplane division. He continued in the same job after the company became the Curtiss-Wright Corp.

By 1930 Wright was vice president of the corporation, serving also as general manager and chief engineer of the Buffalo plant. In 1934 he was transferred to New York to become director of engineering and chairman of the engineering and policy board.

Supervised Famous Planes.—While Wright was chief engineer, many famous Curtiss planes were produced under his supervision. There were Pulitzer and Schneider cup winners, and such famous military designs as the Hawk, Falcon, Helldiver, Shrike, and Condor.

Among commercial planes, he took part in the development of such types as the Robin, Fledgling, Kingbird, and Commercial Condor. But his most spectacular accomplishment was the creation, in 1929, of the Tanager.

In the Tanager, Wright set out deliberately to build an airplane which would win the $100,000 prize offered by the Daniel Guggenheim safe aircraft competition. Spending good corporation money on a "contest" caused head-shaking among hard-headed businessmen. But Wright went ahead.

The Tanager won the $100,000 price against 15 contenders. A single-engine biplane, it would take off in 295 feet, land in 90 feet. The Tanager had a top speed of 111 miles an hour, and a landing speed of only 30 miles an hour. It was spin-proof. And its "floating" ailerons provided lateral control in a stall. It is interesting that no airplane has been built since the Tanager which can meet those specifications.

Wright's unique combination of high technical skill, intimate knowledge of aircraft production problems, and executive ability enabled him to make a tremendous contribution to his country in World War II.

Called to Washington.—Early in 1940, Wright was called to Washington as consultant to William S. Knudson, head of the National Defense Advisory Commission. During his initial 5 months' stay in Washington, he helped lay the foundation for aviation industrial expansion to meet the growing menace of war.

T. P. Wright

In February 1941, Wright again resigned his Curtiss-Wright connections and returned to Washington as assistant chief of the Aircraft Section of the Office of Production Management. After that agency had become the War Production Board, he organized the Aircraft Resources Control Office, of which he was made director on March 6, 1943.

The ARCO was the executive agency of the Aircraft Production Board, of which Wright also was a member. Wright's office was responsible for coordinating the production of airframes, engines, and propellers, supervision of the Aircraft Scheduling Unit at Dayton, Ohio, and also for liaison between the Army and Navy Air Forces and the War Production Board.

Two Missions to England.—During the war he headed two missions to England, one consisting of top aviation manufacturing engineers and executives in 1942, and one in 1944 which consisted of ranking Army and Navy air officers who met with the corresponding officers of the RAF and the Royal Navy Air Force to exchange views on matters of technical development.

The results of his work were written in the air offensive against Germany, and finally in the invasion of Europe and the end of the war with Germany and Japan. His accomplishments in stimulating the Nation's plane production won for him the War Department's highest award to civilians, the Medal for Exceptional Civilian Service. The citation accompanying the medal explained that it was:

"In recognition of his outstanding contribution to the expansion of aircraft production by assisting in the equitable resolution of the many difficult and urgent problems of aircraft scheduling, standardization, and allocation. His development of useful methods of measuring manpower utilization and production efficiency has been of material assistance to the successful prosecution of the war."

Appointed Administrator.—On September 20, 1944, after aircraft production was in full stride and the invasion of Europe a success, Wright's appointment as Administrator of Civil Aeronautics was confirmed.

Even after his CAA appointment, Wright continued his cooperation with the armed forces. He was chosen aviation director of the United States Strategic Bombing Survey which studied the results of the Eighth Air Force's strategic bombing of Europe. For his "exceptionally meritorious achievement" in connection with this survey, he was awarded the War Department's Medal of Freedom.

Wright's accomplishments in the field of aviation have won him numerous awards and honors. In 1930, the Society of Automotive Engineers, of which he is a member, awarded the Wright Brothers Medal for his paper, "The Tanager—a Safe Airplane." In May 1945, he delivered the Wilbur Wright Memorial Lecture at the annual meeting of the Royal Aeronautical Society in London. His paper, "Aviation's Place in Civilization," brought international acclaim.

Wright is past president of the Aero Club of Buffalo, N. Y., and in 1937 and 1947 was president and chairman of the board of award of the Guggenheim Medal Fund, Inc. He is a founder, charter member, past president, and honorary fellow of the Institute of Aeronautical Sciences. He is an honorary fellow of the Royal Aeronautical Society, and a member of the Council of Foreign Relations.

Awarded Guggenheim Medal.—A recognition of his contributions to aviation was award of the Daniel Guggenheim medal, the highest honor in American aviation. The citation with the award, presented in January 1946, reads: "For outstanding contributions to the development of civil and military aircraft and for notable achievement in assuring the success of our wartime aircraft production program."

U. S. Schools Benefit by CAA Aviation Education

Aviation education bulletins for the school systems of 30 States, along the general lines of those initiated by the Civil Aeronautics Administration's aviation training staff, had been issued by the end of 1947.

In all, 47 States were assisted in aviation education activities during the year by the division. More than 13,000 instructors, including those from grade schools to colleges and universities, took part in summer workshops on aviation education to which CAA aviation educationists contributed.

An important and popular training service was rendered by the Audio-Visual Training Aids Division, which started in May 1946 with 28 film and film-strip subjects, and now has circulated 235. These included 100 sound films and 135 film strips, and the demand for these subjects thus far exceeds the supply.

The Sixth Inter-American Aviation Training Program, which was held during 1947, was unique in that it included ranking aviation executives and administrators from Latin America, enabling them to explore every phase of CAA and commercial activities. Previously, the training had been confined to pilots, mechanics, and technicians. Still other high officials from Latin-American countries will come here for such study and observation.

Fifty citizens of the Philippine Republic were given training for the operation and maintenance of Philippine airways in the 1947 program in a course to last until next April. Of these, 14 were trained in air-traffic control, 18 in airways communication and 18 in airways maintenance. A like number will come from the Philippines in the 1948 program.

Price Changed on Flight Manual

Single copies of the January 1 issue of the Flight Information Manual are $1, instead of 55 cents as previously reported in the January 15 Journal. The 236-page Flight Manual contains CAA Manual 60—Air Traffic Rules, formerly a separate publication, along with related data on airport and navigation aids, and is on sale at the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

"Survival in the Air Age" Subject of the Report Submitted to the President by Air Commission

(Continued from page 13)

percent of our total Federal budgets since 1915 have been for war or preparation or payment for war.

We need a new strategic concept for the defense of the United States. This strategic concept must be based on air power.

Heretofore we have had one force in being, the Navy. Now we need two, the Air Arm and the Navy. There is a new element to defend, the air. Heretofore it was enough to defend the water approaches to the United States. Now we must defend both the water approaches and the air approaches.

For strategic purposes we must divide the future into two parts—the present Phase I during which we may assume that we have a monopoly on atomic weapons, and Phase II, the time when other nations will have atomic weapons in quantity and the equipment to deliver them in a sustained attack on the United States mainland.

It is proper to assume, for our present planning purposes, that other nations are not now producing atomic weapons in quantity.

It would be an unreasonable risk for our present planning purposes to assume that other nations will not have atomic weapons in quantity by the end of 1952.

Biological weapons are undoubtedly being studied in all parts of the world. In an all-out attack on the United States the possibility that they may be used should not be overlooked. They may be delivered by the air or by preplacement by enemy agents.

It is probable that other nations will develop atomic weapons before they develop supersonic bombers in quantity with a striking range of 5,000 miles, or supersonic accurate guided missiles with a 5,000-mile range. Nevertheless, it would be unwise to assume, in the planning of our defense establishment, that other nations will not have the planes and missiles capable of delivering a sustained attack on the United States mainland by the end of 1952.

On first impression it might seem that a major war during Phase I is unlikely; and this opinion has been expressed to the Commission by high military authorities. There is, however, such a thing as blundering into a war, and we must be prepared for war during Phase I. In Phase II we need an even stronger force. An attack during Phase II would be extremely violent. What we must have and can support in Phase II is a reasonably strong defensive establishment to minimize the enemy's blow, but above all a counter-offensive air establishment in being which will be so powerful that if an enemy does attack we will be able to retaliate with the utmost violence and to seize and hold the advanced positions from which we can divert the destruction from our homeland to his.

The Air Force is inadequate even for this Phase I when we are relatively free from the danger of sustained attack on our homeland. The Air Force is hopelessly wanting in respect of the future Phase II period when a serious danger of atomic attack will exist.

The Air Force in being must be increased from its present level to a minimum regular establishment of 70 groups with 6,869 first-line aircraft, an Air National Guard of 27 groups with 3,212 first-line aircraft, and an adequately equipped 34 group Air Reserve. The level of procurement of new aircraft must be high enough to keep this force modern at all times. An adequate reserve, now estimated by the Air Force at 8,100 aircraft, must be created and kept in a proper state of modernization. We must start now on this program and complete it before the end of 1952.

The Navy Air Arm as presently constituted is adequate. The Navy needs, however, additional funds for the procurement of new aircraft to replace the World War II aircraft which are rapidly becoming obsolescent.

Under the Unification Act of 1947, it is the responsibility of the Secretary of Defense, acting under the President, to see to it that the Joint Chiefs of Staff prepare integrated strategic plans for the defense of the country and consolidate the functions of the Services in such a way that the plans can be carried out with a minimum of personnel and equipment and a maximum of effectiveness. We asked the Secretary of Defense to furnish us with the requirements of the air establishment as they should be now and at various specified future periods. The Secretary of Defense has been unable to comply with this request. The completion of the necessary studies and of the integration of the three Services, without which our strategic plans will not be efficient and economical, will require time. It is of the utmost importance, however, that the work of the Joint Chiefs of Staff, under the Secretary of Defense and the President, to establish these requirements, be completed at an early date. The real and urgent task is to consolidate and integrate the functions of our total military establishment and to increase the dollar efficiency of every segment of it.

The current budget for the Military Establishment totals 10,098 million dollars. Two thousand eight hundred and fifty million dollars is for the Air Force, 4,037 million dollars for the Navy, and 3,211 million dollars for the Army. Out of the total budget of 10,098 million dollars, 4,050 million dollars is for naval aviation and the Air Force.

The Commission recommends that the increase in the Air Force to 70 groups be started at once and be completed by the end of the year 1952. This will require an increase in the Air Force budget from the present level of 2,850 million dollars to 4,150 million dollars for the calendar year 1948 and 5,450 million dollars for the calendar year 1949.

The Navy must immediately contract to increase its annual procurement of airplanes in order to equip properly the present fleet with modern planes as World War II reserves are exhausted. The Navy budget should be increased by 192 million dollars in the calendar year 1948 and by a further 310 million dollars in the calendar year 1949.

The foregoing recommendations of the Commission would increase the military budget from its present rate of 10,098 million dollars to 11,590 million dollars for the calendar year 1948 and to 13,200 million dollars for the calendar year 1949.

The Air Transport Command and the Naval Air Transport Service should be consolidated into one military air transport service which would handle all scheduled transport work for the Army, Navy, and Air Force.

The Commission recommends that the National Security Act of 1947 be amended to provide that the President appoint on June 15 of each second year, or more frequently as he sees fit, a Commission of five citizens, subject to confirmation by the Senate, to review the Military Establishment of the country and its adequacy in the light of the then international military and political situation, and to submit a report of their findings and recommendations to the President on the following January 1. This report to the President should be made public.

Section II.—The Aircraft Manufacturing Industry

A strong aircraft industry is an essential element in the Nation's air power.

As the minimum level to which the industry must be held to provide a safe base for expansion in an emergency, we have adopted the general range of requirements of the Air Coordinating Committee in its report of October 22, 1945. The Air Coordinating Committee adopted two levels. The lower level was an estimate that the aircraft industry needed military purchases of 30 million pounds of airframe weight annually. This lower level was on the assumption that the maintenance of world peace was well assured and that a substantial degree of disarmament had taken place. The second level proposed by the Air Coordinating Committee was for 60 million pounds of airframe weight annually. This second level was on the assumption that world conditions were such that the United States needed a substantial striking force ready at all times to cooperate in the maintenance of world peace. We believe that military purchases of aircraft of 30 to 40 million pounds annually in addition to demands for commercial and private planes would provide a sound basis for expansion in an emergency.

No artificial stimulation to achieve this result is necessary. If the program outlined in section I is carried out the necessary base for expansion of the aircraft industry will exist. The rate of procurement recommended in section I would increase the present military procurement (which is now at the rate of about 21 million pounds annually) by contracts for an additional 13 million pounds in the calendar year 1948, and for 22 million pounds in the calendar year 1949 more than in 1948.

There follows, in the report, an analysis of the present state of the aircraft manufacturing industry.

We recommend that the Armed Services plan their aircraft procurement as far in advance as possible and that Congress provide the legislative base for such planning. We recommend the placing of orders for planes for delivery over a 5-year period whenever possible.

There follows, in the report, a discussion of industrial mobilization planning. We recommend that there be an annual mobilization budget showing the appropriations necessary to put this budget into effect if mobilization is initiated in the then current year; and that the National Security Resources Board set up an Office of War Mobilization to be held ready for activation upon the declaration of a national emergency and mobilization by the President.

There follows, in the report, a discussion of procurement policies, plant dispersion, plant reserve, and machine-tool reserve.

Section III.—Aeronautical Research and Development

Intensive research and development in aeronautics is essential to the national defense and to the national welfare. During World War II we concentrated on the development of existing types of aircraft for production and practically abandoned fundamental research in the aeronautical sciences. By VJ-day our reserve of research information was largely exhausted.

Our fundamental knowledge of aerodynamic phenomena must be extended in all speed ranges, particularly in the supersonic. The provision of additional funds will not of itself solve the problem—the most serious shortage is in personnel.

Other nations are busily at work in aeronautical research. Although we have difficulty in obtaining information from other countries, they have almost complete access to our data. We publicize our latest advances in the aeronautical arts widely. The Commission believes that rigid enforcement of wartime security measures with respect to advanced aeronautical development is necessary.

We recommend that the possibility of employing atomic energy for the propulsion of aircraft be followed up.

We believe that more coordination of Government work on research on guided missiles should be provided.

Research by the National Advisory Committee for Aeronautics, with respect to personal aircraft, should seek for lower landing speeds, coupled with higher

top speeds. The NACA effort in this area should be limited strictly to basic research and not be applied to the development of any commercial article.

Research and development on gas turbines and rocket engines should be pursued diligently, but research and development on piston type engines should not be abandoned. The conventional combination of the piston engine and propeller will be useful for many years for both long-range bombers and transports.

More research effort must be put into the development of systems for making blind landings with aircraft. This is presently under consideration by the Air Coordinating Committee.

Each aeronautical research agency should be allocated a lump sum annually, the appropriation to be based on its estimated requirements. Legislation should be enacted to authorize research agencies to make contracts to cover a 5-year period.

The United States is seriously short of equipment for research in the transonic and supersonic speed range. The 16 supersonic tunnels planned under the so-called Unitary plan of the NACA should be authorized and installed as quickly as possible. The remaining wind tunnels projected under the Unitary plan should be constructed with such priority and at such rate as recommended by the Research and Development Board.

The most serious lack in the research and development field is in personnel. We recommend that education in the aeronautical sciences be given a high priority. One way to attract capable men for research in Government would be to lift the current limitation on salaries. Under the present Classification Act the limit is $10,000 a year. We recommend that the Congress remove the salary ceiling for top-caliber scientists.

Section IV.—Civil Aviation

The air lines are now passing through one of the most serious crises of their history. This situation is significant for two reasons. If not relieved, it will contribute to the deterioration of the air-line service to the public. The second reason is that as a potential military auxiliary the air lines must be kept strong and healthy.

Although some air-line problems of 1947 may differ from those of the prewar period, the over-all situation is the same: The revenue from passengers and cargo, plus a revenue for the carriage of the mail roughly equal to the passenger rate, will not support the operations of many of the companies. If they are to continue in operation and start again up the ladder toward self-sufficiency, the Government will have to increase the mail rates.

The carriage by air of all first-class mail which can be expedited thereby and the inauguration of a parcel post by air should be given serious consideration by Congress when the air lines achieve a satisfactory regulatory status.

We have not gone into the technical aspects of safety because the President's Board of Inquiry on Air Safety has been extensively studying the problem. We recommend, however, that new types of transport planes be operated regularly on nonpassenger schedules for a specified mileage before passengers are carried. We believe also that CAB economic control over contract carriers would tend to increase safety.

It is especially important to increase the regularity of service. Air lines will not have mass transportation until people are reasonably certain that they can depart and arrive on schedule. For safety and regularity a basic requirement is a Nation-wide system of air-traffic control, navigation, and landing aids. The Federal Government must accept the financial burden of providing these aids until those who use them are in a finuancial position to pay their fair share of the cost. Agreement must be reached as soon as possible by the interested private groups and responsible Government agencies on a common system of landing aids for immediate installation which will adequately serve both civilian and military needs. Government expenditure for electronic aids to air-traffic control, navigation, and landing will do more than anything else to advance the air lines toward self-sufficiency.

We recommend that the Civil Aeronautics Board defer for a short time decisions in new route certification cases. This is not to be construed as a freezing of the present route pattern, which would certainly be undesirable. There is, however, a widespread confusion as to the principles which guide the CAB in route determinations. There is need for a comprehensive survey of the present situation. If the CAB does not develop a clear-cut plan for an over-all domestic transport pattern, the Congress should give serious thought to giving the over-all planning function of route development to the Secretary of Civil Aviation recommended in section V.

Whether more common carriers of property should be certificated is for the CAB to decide. We believe that in making their decision the Board should avoid impairing the soundness of the existing air transport system by spreading the present and potential traffic among too many separate carriers. If the Board finds that the public convenience and necessity does require some additional common carrier operators, we hope that it will give weight to the records built up by any of those contract operators that have proven their ability to operate economically and efficiently and now desire common carrier status.

We recommend that the Civil Aeronautics Board prevent the control by surface carriers of the United States air transport system or any important segment thereof. We believe that individual progressive carriers, desirous of developing air transport as a part of a coordinated service, should not be automatically prevented from such action simply on the grounds that they are surface carriers. We recommend that the Congress enact legislation clarifying these two points.

We recommend that the CAB be given economic control of all air carriers for hire.

There is a real need for feeder air lines in those areas whose topographical features make surface connection between cities unsatisfactory. We recommend that the present experimental period for feeder air lines remain at 3 years. If it becomes evident that this period can be extended without burdensome cost in mail pay, we recommend extensions. We also recommend that new certificates, if any, be granted for 5 years.

We agree with the present CAB policy which favors limited competition among American operators on international routes. We do not approve the chosen-instrument policy.

We regret the failure of the International Civil Aviation Conference in Geneva to agree on a multilateral treaty covering rights and obligations in international air operations. We feel, however, that this agreement should not be sought at the cost of abandoning the so-called Bermuda-type agreements in regard to the right to carry passengers between any two foreign countries on a route—commonly known as the Fifth Freedom.

The CAB should be given control over international rates.

A State-local aviation panel advisory to the Air Coordinating Committee should be established in order to give official recognition to State and local aviation organizations at the Federal level.

We recommend Congress appropriate each year the full amount of Federal funds permissible under the Federal Airport Act of 1946.

Where a question arises as to whether airport facilities are constructed with the aid of Government funds or through the use of private capital, an investigation should be made by the CAB. If it is found that Government funds were used, steps should be taken to make these facilities available to all United States civil aircraft at reasonable rates.

Section V.—Government Organization

We recommend that the Government executive functions relating to civil aviation remain under the direction of the Secretary of Commerce who shall have immediately under him a Secretary of Civil Aviation in charge of a Department of Civil Aviation. The position of Administrator of Civil Aeronautics should be abolished and the functions, activities, and duties of the Civil Aeronautics Administration transferred to the newly formed department. We recommend that there be set up parallel to the Secretary of Civil Aviation a Secretary of Industry and Trade who would supervise a Department of Industry and Trade within the Department of Commerce. This would parallel within the Department of Commerce the pattern recently set up in the Military Establishment.

There should be established an Aircraft Development Corporation authorized to pay all or part of the development cost of cargo or other nonmilitary planes, components, navigational aids, and safety appliances. The Corporation should also be authorized to make loans to manufacturers for development costs when it appears that such financing cannot be obtained from civilian sources.

There should be established an Air Safety Board within the Department of Civil Aviation to consist of three members appointed by the President subject to confirmation by the Senate. The Air Safety Board would be responsible for the investigation and analysis of air accidents and submit reports to the Secretary of Civil Aviation to be made public by him.

The promulgation of safety regulations should be transferred from the Civil Aeronautics Board to the Department of Civil Aviation, thereby combining in that Department the responsibility for the issuance and enforcement of safety regulations. This move would permit the Board to concentrate on its main function of economic regulation.

The Civil Aeronautics Board should continue to be an independent agency, located within the Department of Civil Aviation for housekeeping purposes only. The membership of the Civil Aeronautics Board should be increased from five to seven in order that the practice of the Interstate Commerce Commission of operating by divisions may be adopted. The salary of Board members should be increased to $15,000 a year. The staff of the Civil Aeronautics Board should be increased.

Sometime within the future, all executive transportation functions of the Government should be centered in the Department of Commerce under a Secretary of Transportation at which time the Secretary of Civil Aviation would be succeeded by a Secretary of Transportation. The independent semijudicial bodies in the transportation field should, however, remain independent, and be brought into the Department of Transportation for administrative housekeeping purposes only.

The Secretary of Commerce should be a member of the National Security Council.

The Secretary of Civil Aviation should be chairman of the Air Coordinating Committee.

BOAC Permit Amended

British Overseas Airways Corp.'s foreign air carrier permit has been amended by the Civil Aeronautics Board, authorizing BOAC to engage in foreign air transportation of persons, property and mail between the co-terminal points Baltimore, Md., Washington, D. C., and New York, N. Y., and the terminal point Bermuda. The Board's order was approved by President Truman.

The Board said that there is a strong economic relationship between the United States and Bermuda and that by reason of the reciprocal rights granted in the Bilateral Agreements between the Governments of the United Kingdom and the United States, it is apparent that the amendment of BOAC's foreign air carrier permit is in the public interest.

Two American flag carriers, Pan American Airways, Inc., and Colonial Airlines, Inc., are presently authorized by the Board to operate local service between the United States and Bermuda.

Western Pilot off Course.—Making an instrument let-down without previously establishing a positive radio fix is given as the probable cause of the Western Air Lines' crash into White Mountain, 14 miles south of Lebec, Calif., Nov. 13, 1946. Severe static, high winds, preoccupation with an unusual amount of radio conversation, and the inoperative Newhall radio range, were aggravating conditions, the Board said.

The plane, en route from Las Vegas, Nev., to Burbank, Calif., crashed 27 miles north of its course at 3:41 a. m. The 11 persons aboard lost their lives.

As a possible explanation for the deviation, the Board suggested that after leaving Daggett the pilots may have tuned the automatic direction finder to the Muroc radio station which is 18 miles north of the on-course Palmdale radio.

Static conditions and preoccupation with getting a clearance to cross Palmdale and Newhall at an acceptable altitude and receiving a clearance into Burbank may have kept the pilots from maintaining a continuous range check and thus discovering the error. Also, since all position reports were made to the company radio at Burbank, the flight did not contact Palmdale radio.

With the Newhall radio inoperative, the flight was supposed to establish a fix at the intersection of the Palmdale-Los Angeles radio ranges before starting a let-down on the Los Angeles range. Two additional fixes were available, one 9 miles south of the intersection, the other 11 miles north.

Other flights had been able to navigate safely through and about the area, the Board reported.

Since the accident, the southwest leg of the Palmdale range has been moved, making it pass over the Newhall radio station instead of 4 miles to the south, and Newhall radio has been designated a compulsory reporting station.

Flew into Ground.—The pilot's momentary loss of control or over-control at a critically low altitude in the final stages of an ILS approach probably caused the Slick Airways accident at Denver, Colo., February 14, 1947, the CAB reports.

A contributing factor was the failure of the co-pilot, acting as safety pilot, to remain alert to the altitude of the plane, the CAB said.

The pilots, on a cargo flight for the carrier, were making a practice approach on the instrument landing system to Stapleton Airport, Denver, when they flew into the ground. The night was clear and visibility was unlimited. Both pilots were killed.

The plane struck the ground 218 feet beyond the ILS middle marker, which is located 3,450 feet from the northeast end of runway 21 at Stapleton Airport. The glide path at this marker is 225 feet above the ground (5,500 feet above sea level).

The CAB found that the landing system at the airport and the glide path receiver in the plane were operating normally. Nothing was wrong with the plane and weather conditions were ideal for an approach under the instrument flying hood Capt. J. C. Hearn was using on the practice approach. The slight dip existing in the glide path at the time was not hazardous, the CAB said.

Both pilots had made about 200 ILS approaches. Capt. Hearn had made 25 approaches on the Denver installation; Capt. W. S. Day, copilot, had made 50.

Apparently the plane was below the 5,500-foot minimum altitude and passed close to the top of the middle marker, the CAB said. The rate of descent and glide angle of the plane after passing the marker was considerably greater than normal for a standard approach, indicating over-control or involuntary loss of control.

"During an ILS approach the glide path indicator becomes more sensitive as the transmitter is approached," the CAB noted. "A small deviation from the glide path will result in a full scale deflection of the glide path needle, a 10-foot variation in altitude giving a decided 'off-course' indication. Experience in ILS training programs indicates a common tendency among pilots not experienced with this system to over-control the plane in attempting to keep the needle centered at a time when the glide path is becoming narrow and small deviations result in full scale deflections of the needle."

The safety pilot is responsible for avoiding collision and keeping track of the altitude on an ILS approach. Slick Airways directs him to call out the air speed and altitude at 15-second intervals while on the final approach, and to notify the pilot over the middle marker when the minimum altitude is reached. The copilot may have fallen down on the job in this instance, the CAB concluded.

Erred in Estimating Fuel.—Slick Airways, a nonscheduled cargo carrier, ran out of fuel on a trip from Denver to Burbank, Calif., September 17, 1947, and made a crash landing at the Lockheed Air Terminal at Burbank. Neither of the two pilots making up the crew was injured.

The pilot failed to compute his fuel consumption properly and to provide for a safe fuel reserve, the CAB said in reporting the accident.

Cruising at 17,000 feet the flight met headwinds of unexpected velocities, slowing it to an average groundspeed of 148 m. p. h. instead of the 170 m. p. h. used in the flight plan to estimate time en route.

The pilots, carrying 915 gallons of fuel, figured 4:40 hours for reaching Burbank. It took them 4 hours and 16 minutes of this time to reach Las Vegas. The captain did not stop at Las Vegas to refuel, however, since he still believed he had enough fuel to go on to Burbank.

During the flight the crew did not make new fuel computations based on time in the air and on the company's fuel consumption data.

At Burbank the flight encountered instrument weather and had to wait for approach clearance for about 10 minutes. The pilot managed to come down on the airport after both engines had quit, but was unable to stop the plane within the airport boundaries.

The CAB pointed out that at the time of the accident, forecast and reporting stations did not furnish complete wind information for flights made at altitudes above 15,000 feet, so the pilots had no way of knowing before takeoff that they would meet high winds.

Since many flights over the Denver-Los Angeles route are now made at 19,000 feet and above, the Weather Bureau is including in their regular forecasts winds aloft data at 20,000 feet.

Two Killed, 18 Injured.—Carburetor icing following loss of power in both engines probably caused the American Airlines' accident at Michigan, Ind., December 28, 1946, the CAB reports.

The flight, en route from Buffalo, N. Y., to Chicago, was cruising at 4,000 feet slightly above the top of an icing overcast. The pilot reported that "both engines were going bad," and that he was descending through the overcast to look for an opening. A minute or two later the plane crashed without recovering normal engine power.

The CAB blamed fuel starvation for the initial loss of engine power, but was unable to find the reason for the fuel starvation. As a possible explanation the CAB said that the pilot may have accidentally exhausted his left auxiliary tank before changing to the main tank. In that case the small amount of additional air entering the fuel system from the fouled valve may have delayed power restoration until enough altitude had been lost to put the plane into the icing overcast.

Both pilots were killed in the crash, and the 18 passengers were injured in varying degrees.

Gas Overflow Causes Fire.—Gasoline overflowed from an auxiliary tank and was sucked into the cabin heating system, the CAB found in fixing the probable cause of the American Airlines' fire in flight at Gallup, N. Mex., November 11, 1947.

Inadvertant fuel transfer from the No. 4 alternate tank into the No. 3 alternate tank caused the No. 3 tank to overflow. The overflow gasoline was pumped out of the air vent line and was drawn back along the skin of the plane into the air intake scoop of the cabin heating system, the investigation disclosed.

This condition, the CAB said, was the result of improper location of the No. 3 alternate tank vent outlet and the inadequate instructions provided flight crews concerning fuel management of the type of plane involved.

After take off from San Francisco, the captain leveled the fuel in the four main tanks and set the selector valves so that each engine was drawing fuel from its respective alternate tank. Inspection on the ground revealed that the right cross-feed control was in the "on all engines" position and the No. 4 alternate booster pump switch was in the "high" position.

The fire first broke out in the air-conditioning compartment and spread to the aft and forward baggage compartments. Carbon dioxide was discharged into the compartments while the flight headed for an emergency landing at the Gallup Airport which had been sighted shortly before the fire was discovered.

Although handicapped by dense smoke in the cockpit and heavy smudge on the windshield, which made it difficult to see outside the cockpit or read the instruments, the captain landed the plane safely at the Gallup Airport 8 minutes after the first fire warning.

Chimney Crash Fatal to 4.—"Out of fuel", is the CAB verdict on the accident at Everett, Mass., in which a plane crashed into the chimney mouth of an operating oil and gas furnace. The pilot, John Nelson Pell, and his three revenue passengers, Thomas, Harriet, and Ann Mandell, lost their lives in the crash.

The weather was very bad at the time, with 100-foot overcast, three-sixteenths of a mile visibility and light drizzle. The plane apparently maintained a straight course in gradual descent with power off until it crashed, the CAB reported. It burst into flames, burned about 1 minute, then fell inside the stack.

The flight was on a return trip from Montreal, Canada, to Beverley, Mass. A stop was made at Burlington, Vt., but the pilot did not refuel there. He checked on weather conditions and departed after learning that continued contact weather was forecast for the Boston area.

Twenty-six minutes after leaving Burlington a fog moved in from the ocean. While the flight was en route, seven Boston weather reports were broadcast, including five specials and two revised terminal forecasts indicating the instrument conditions which prevailed.

The plane was fully equipped for instrument flight and Pilot Pell was an experienced instrument pilot, the CAB said. He was a certificated airline transport pilot and had flown more than 5,000 hours, with about 450 hours on instruments.

Wing Strikes Ground, 2 Killed.—A pipe-line-patrol job, requiring extremely low flight, ended in a crash at Graham, Tex., which killed Commercial Pilot John A. Basham and a passenger, Randolph S. Railey.

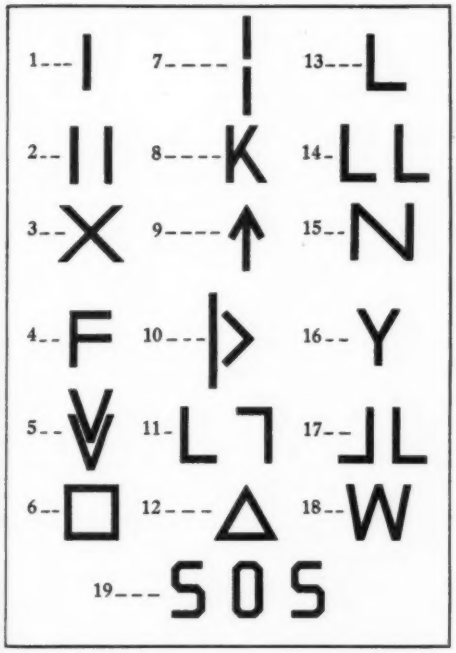
The plane, flying northeast, made a 120° right turn to follow the pipe line. During the steep turn, the right wing struck the ground and the plane crashed and burst into flames. There was a strong, gusty southwest wind at the time of the accident.

Pilot Basham, employed as a pipe-line-patrol pilot, had 1,800 flying hours with more than 200 in small civilian aircraft. Railey, an employe of the Texas Pipe Line Co., was acting as an observer on the flight.

Ground Code Signals For Air-borne Aid Adopted by CAA

Nineteen symbols by which air-borne help may be summoned by persons, communities and downed pilots have been adopted by the Civil Aeronautics Administration, T. P. Wright, Administrator, has announced. To these symbols originated by the Army and now used by all the military services, the international call for help, S O S, has been added by the CAA.

The CAA believes that airplanes passing overhead may be able to assist people in remote sections, or in sections temporarily cut off from other communication, and therefore suggests to pilots that they learn both to recognize these symbols, and to use them if they, themselves, are forced down in areas where only other pilots can see them.



KEY: 1—Require doctor. Serious injuries. 2—require medical supplies. 3—Unable to proceed. 4—Require food and water. 5—Require firearms and ammunition. 6—Require map and compass. 7—Require signal lamp with battery, and radio. 8—Indicate direction to proceed. 9—Am proceeding in this direction. 10—Will attempt take-off. 11—Aircraft seriously damaged. 12—Probably safe to land here. 13—Require fuel and oil. 14—All well. 15—No. 16—yes. 17—Not understood. 18—Require mechanic. 19—International symbol for help.

Covers Most Emergencies.—Almost every emergency is covered by the sign language of the newly adopted code. The call for medical help is the simplest of all: A single straight line 10 feet long and about 2 wide laid out in any manner to be noticeable from the air. Need for both medical help and supplies is indicated by two parallel straight lines of the same dimensions and separated by an interval of about half their length.

A chart illustrating the 19 emergency distress signals is contained in CAA Technical Standard Order (TSO) N8. The following instructions are printed on the chart:

1—Lay out symbols by using strips of fabric or parachutes, wood, stones, or any available material.

2—Provide as much color contrast as possible between material used for symbols and background against which symbols are exposed.

3—Symbols should be at least 10 feet high or larger, if possible. Care should be taken to lay out symbols as shown to avoid confusion with other symbols.

4—In addition to using symbols, every effort is to be made to attract attention by means of radio, flares, smoke, or other available means.

5—When ground is covered with snow, signals can be made by dragging, shoveling or tramping the snow. The depressed areas forming the symbols will appear to be black from the air.

6—Pilot should acknowledge message by rocking wings from side to side.

Where to Get Chart.—Copies of the chart may be obtained from the Office of Aviation Information, CAA, Washington 25, D. C., or from any of the CAA regional offices. The chart also appears in the January 1948 issue of the Flight Information Manual.

CAA Tenders 127 Airport-Aid Grants During Past Year

The Federal Aid Airport Program progressed from the paper to the construction stage during 1947 and by December 17 the Civil Aeronautics Administration had made 127 grant offers to local sponsors totaling $12,966,628.

Most of the grant offers were for construction or improvement of airports in the smaller classes. Of the grant offers made to date, 34 were for class 1 airports with $1,754,853 in Federal funds, 37 class 2 airports with $1,666,481 in Federal funds, 51 class 3 airports with $7,836,459 in Federal funds, and 5 for construction of class 4 and above terminal type fields with $1,708,835 in Federal funds. In addition, 7 projects were in the Washington office for final review prior to official grant offers.

The small number of grant offers for large airports is explained in part by the fact that under the law funds were not available for larger airports until July 1947, a full year after money became available for smaller fields. An example of fast action once the funds were on hand is the case of Seattle-Tacoma Airport, Seattle, Wash., for improvement of a new class 5 airport. A tentative allocation was made to the sponsors by the CAA on August 5. On September 24, the sponsors had completed all specifications and engineering, had the local funds in the bank and were made a grant offer of $850,000 by the CAA. Notice to proceed with construction was issued October 17.

Progress Record.—The progress record of the Federal Aid Program during the year shows that on January 9 the regulations governing the Federal Airport Act were approved in final form. On January 11 the Administrator announced the 1947 construction program, listing 800 airports for either construction or improvement. The National Airport Plan, a 3-year forecast showing the aeronautical need for airports over the next 3 years and containing 4,431 locations, was published by the CAA on February 9.

State and local sponsors then obtained sites, drew up plans and specifications, and submitted to the CAA their formal applications for Federal aid.

Twin Falls, Idaho, was the first community to receive a grant offer, when on May 7 the Administrator signed the papers for the construction of a new class 3 airport at a cost of $647,221, of which $384,000 was in Federal funds.

On August 5 the 1947 and 1948 programs were merged into one. This combined program included tentative allocation of $64,816,515 to 896 local sponsors, and $2,168,700 for projects in the territories and $17,524,250 in the Administrator's discretionary fund.

Civil Airports Increase By More Than 1,500 In Past 12 Months

During 1947, more than 1,500 airports primarily available to civilian flying were added to the United States total. A year ago there were 3,710 civil airports—today there are 5,258, an increase of 42 percent. The combined total of all civil and military airports on record with the Civil Aeronautics Administration increased from 4.490 to 5,759—a 28 percent gain over the previous year.

Commercial airports increased from 1,929 to 2,849 (48 percent). Municipal airports moved up from 1,424 to 1,818, or 28 percent. The military services released 279 airports during 1947, reducing their number from 780 to 501 (36 percent decline).

The January 1, 1948, State-by-State record of airports classified by type was as follows:

U. S. Airports on January 1

(Data covers existing airports recorded with CAA)

State	Type of Operation					
	Total	Commercial	Municipal	CAA Intermediate	Military[1]	All others[2]
Total	5,759	2,849	1,818	178	501	413
Ala.	98	44	31	2	17	4
Ariz.	163	41	37	7	51	27
Ark.	85	49	21	1	0	14
Calif.	406	188	111	10	61	36
Colo.	99	32	43	2	8	14
Conn.	32	21	10	1	0	0
Del.	22	16	2	0	1	3
D. C.	3	0	0	0	2	1
Fla.	200	49	82	3	60	6
Ga.	133	47	51	4	12	19
Idaho	93	14	52	4	2	21
Ill.	181	125	27	5	16	8
Ind.	163	121	28	2	7	5
Iowa	163	106	45	4	1	7
Kans.	183	76	69	3	25	10
Ky.	64	48	9	2	3	2
La.	77	25	23	4	8	17
Maine	76	44	23	0	3	6
Md.	53	32	5	0	7	9
Mass.	75	48	21	0	4	2
Mich.	224	107	106	0	5	6
Minn.	126	63	62	0	0	1
Miss.	103	48	34	4	11	6
Mo.	126	79	33	5	7	2
Mont.	98	15	56	11	1	15
Nebr.	105	40	42	5	10	8
Nev.	54	19	15	9	8	3
N. H.	34	19	12	0	1	2
N. J.	84	61	12	0	5	6
N. Mex.	104	35	31	10	10	18
N. Y.	241	174	42	3	11	11
N. C.	151	107	28	1	15	0
N. Dak.	68	27	34	6	0	1
Ohio	199	152	34	6	4	3
Okla.	163	73	75	2	5	8
Oreg.	106	37	46	5	1	17
Pa.	199	148	40	3	5	3
R. I.	11	6	1	0	3	1
S. C.	70	23	34	2	6	5
S. Dak.	62	24	34	1	1	2
Tenn.	71	36	21	6	4	4
Texas	470	184	141	21	64	60
Utah	46	7	26	9	3	1
Vt.	17	8	9	0	0	0
Va.	113	70	19	3	17	4
Wash.	136	58	52	3	14	9
W. Va.	48	29	14	2	0	3
Wis.	109	61	45	2	1	0
Wyo.	52	13	30	5	1	3

[1] Indicates Army, Navy, Army-operated and Navy-operated (latter two are municipal or commercial airports taken over by Army or Navy).
[2] Includes private and miscellaneous Government airports.

CAB 1947 Annual Report Issued

The Annual Report of the Civil Aeronautics Board for 1947 has been published and is now on sale, at 50 cents a copy, by the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C.

This report covers the activities of the Board since its last annual report and up to November 1, 1947.

Scheduled Air Carrier Operations

Source: CAB Form 41

Domestic Trunk Lines—November 1947

Operator	Revenue miles	Revenue passengers (unduplicated)	Revenue passenger-miles (000)	Express and freight (tons)	Ton-miles flown		Passenger seat-miles (000)	Revenue passenger load factor (percent)
					Express	Freight		
American Airlines, Inc.	4, 167, 155	196, 359	94, 847	3, 944. 0	544, 275	1, 350, 793	152, 950	62. 01
Braniff Airways, Inc.	918, 098	46, 858	15, 805	286. 0	73, 251	64, 141	28, 538	55. 38
Chicago & Southern Air Lines, Inc.	566, 262	21, 317	8, 609	237. 0	53, 983	40, 139	15, 862	54. 27
Colonial Airlines, Inc.	226, 212	9, 455	2, 614	25. 5	4, 168	1, 887	4, 452	58. 72
Continental Air Lines, Inc.	426, 302	10, 892	3, 948	47. 0	5, 995	15, 284	8, 783	44. 95
Delta Air Lines, Inc.	926, 415	36, 727	13, 265	370. 0	, 75, 103	115, 205	25, 140	52. 76
Eastern Air Lines, Inc.	3, 877, 105	150, 457	71, 320	.....	315, 794	.....	135, 038	52. 81
Inland Air Lines, Inc.	176, 617	4, 887	1, 781	18. 0	3, 825	2, 683	3, 258	54. 67
Mid-Continent Airlines, Inc.	494, 655	19, 156	5, 742	84. 0	13, 289	15, 398	9, 687	59. 28
National Airlines, Inc.	699, 840	22, 626	10, 940	161. 4	69, 205	48, 339	24, 442	44. 76
Northeast Airlines, Inc.	293, 946	26, 457	4, 883	138. 8	8, 679	10, 097	8, 916	54. 77
Northwest Airlines, Inc.	1, 222, 520	40, 402	21, 802	400. 5	136, 904	102, 259	38, 612	56. 46
Pennsylvania-Central Airlines Corp.	1, 228, 669	78, 232	21, 050	1, 148. 0	146, 965	298, 799	40, 264	52. 28
Transcontinental & Western Air, Inc.	4, 348, 032	92, 779	68, 528	1, 252. 0	514, 894	554, 299	112, 103	61. 13
United Air Lines, Inc.	4, 191, 804	124, 945	74, 200	2, 261. 0	553, 554	1, 228, 117	114, 722	64. 68
Western Air Lines, Inc.	516, 648	22, 034	8, 352	169. 0	25, 435	39, 763	17, 288	48. 31
Total	24, 280, 280	903, 583	427, 686	[a] 10, 542. 2	2, 545, 319	[a] 3, 887, 203	740, 055	57. 79

[a] Does not include Eastern Air Lines.

Domestic Trunk Lines—January–November 1947

Operator	Revenue miles January–November		Revenue passengers (unduplicated) January–November		Revenue passenger-miles (000) January–November		Express and freight (tons) January–November	
	1947	1946	1947	1946	1947	1946	1947	1946
American Airlines, Inc.	53, 738, 505	57, 427, 212	2, 588, 945	2, 257, 906	1, 294, 046	1, 186, 817	29, 372. 0	18, 191. 0
Braniff Airways, Inc.	10, 101, 650	10, 500, 225	542, 810	485, 538	183, 378	194, 378	2, 466. 9	1, 685. 9
Chicago & Southern Air Lines, Inc.	6, 505, 166	7, 412, 725	262, 414	324, 164	103, 365	127, 686	2, 336. 0	1, 269. 7
Colonial Airlines, Inc.	2, 927, 175	2, 927, 278	127, 767	143, 272	35, 607	42, 370	288. 7	208. 9
Continental Air Lines, Inc.	4, 709, 596	4, 993, 371	157, 423	189, 510	54, 560	70, 264	442. 0	294. 9
Delta Air Lines, Inc.	10, 694, 014	10, 026, 322	458, 050	462, 618	184, 884	189, 442	2, 830. 0	1, 206. 0
Eastern Air Lines, Inc.	41, 654, 351	37, 223, 158	1, 569, 620	1, 397, 605	795, 725	718, 083	[b] 8, 013. 3	5, 421. 8
Inland Air Lines, Inc.	2, 024, 122	1, 825, 773	72, 671	74, 793	25, 765	20, 647	161. 1	90. 6
Mid-Continent Airlines, Inc.	6, 065, 321	4, 779, 793	249, 791	228, 318	75, 987	69, 098	709. 1	347. 5
National Airlines, Inc.	8, 571, 229	8, 263, 310	287, 622	264, 376	147, 706	156, 158	1, 225. 1	387. 7
Northeast Airlines, Inc.	3, 672, 449	3, 784, 487	304, 778	384, 550	58, 315	77, 547	1, 003. 9	589. 5
Northwest Airlines, Inc.	15, 629, 358	17, 014, 666	606, 448	576, 765	325, 703	350, 175	3, 836. 8	1, 868. 9
Pennsylvania-Central Airlines Corp.	15, 046, 796	16, 075, 726	1, 024, 501	1, 246, 414	268, 628	346, 888	11, 613. 0	5, 969. 0
Transcontinental & Western Air, Inc.	44, 568, 259	37, 518, 931	981, 301	815, 510	748, 197	688, 773	10, 818. 0	9, 119. 0
United Air Lines, Inc.	54, 549, 652	49, 957, 903	1, 803, 898	1, 595, 761	1, 119, 498	984, 545	19, 173. 0	11, 027. 4
Western Air Lines, Inc.	6, 822, 599	7, 872, 161	388, 213	443, 350	156, 715	176, 761	1, 872. 9	1, 340. 0
Total	287, 280, 242 103. 49	277, 603, 041 100. 00	11, 426, 252 104. 92	10, 890, 450 100. 00	5, 578, 079 103. 30	5, 399, 632 100. 00	96, 161. 8 162. 94	59, 017. 8 100. 00

Operator	Ton-miles flown				Passenger seat-miles (000) January–November		Revenue passenger load factor (percent) January–November	
	Express January–November		Freight January–November					
	1947	1946	1947	1946	1947	1946	1947	1946
American Airlines, Inc.	4, 566, 380	4, 420, 224	9, 681, 456	5, 123, 078	1, 835, 256	1, 434, 232	70. 51	82. 75
Braniff Airways, Inc.	735, 632	506, 380	395, 377	198, 844	295, 716	246, 169	62. 01	78. 96
Chicago & Southern Air Lines, Inc.	599, 712	431, 302	338, 622	32, 786	174, 965	178, 874	59. 08	71. 38
Colonial Airlines, Inc.	55, 402	49, 053	6, 021	0	57, 884	58, 368	61. 51	72. 59
Continental Air Lines, Inc.	75, 389	61, 751	117, 942	57, 116	97, 068	103, 785	56. 21	67. 70
Delta Air Lines, Inc.	670, 738	445, 478	735, 418	94, 928	299, 463	263, 037	61. 74	72. 02
Eastern Air Lines, Inc.	3, 292, 616	2, 910, 440	[b] 1, 806, 450	220, 750	1, 310, 958	913, 053	60. 70	78. 65
Inland Air Lines, Inc.	38, 889	17, 563	25, 751	3, 858	39, 332	33, 135	65. 51	62. 31
Mid-Continent Airlines, Inc.	134, 758	118, 930	95, 072	0	122, 320	94, 305	62. 12	73. 27
National Airlines, Inc.	435, 186	205, 975	447, 576	25, 338	269, 334	197, 622	54. 84	79. 02
Northeast Airlines, Inc.	99, 605	100, 577	54, 170	0	113, 332	114, 876	51. 46	67. 50
Northwest Airlines, Inc.	1, 495, 876	1, 064, 988	810, 490	12, 046	465, 439	422, 941	69. 98	82. 80
Pennsylvania-Central Airlines Corp.	1, 823, 590	1, 146, 171	2, 088, 986	249, 673	497, 467	486, 453	54. 00	71. 31
Transcontinental & Western Air, Inc.	4, 886, 590	3, 389, 972	4, 292, 896	1, 844, 519	1, 124, 180	809, 610	66. 55	85. 07
United Air Lines, Inc.	5, 972, 937	4, 890, 436	8, 952, 240	3, 615, 083	1, 474, 762	1, 156, 325	75. 91	85. 14
Western Air Lines, Inc.	369, 055	370, 154	396, 249	156, 803	250, 394	240, 169	62. 59	73. 60
Total	25, 252, 355 125. 45	20, 129, 394 100. 00	[b] 30, 244, 716 259. 95	11, 634, 822 100. 00	8, 427, 870 124. 80	6, 752, 954 100. 00	66. 19 82. 78	79. 96 100. 00

Passenger-miles flown (total revenue and nonrevenue, in thousands): January—388,289; February—380,606; March—503,466; April—535,254; May—574,303; June—556,562; July—553,950; August 621,950; September—619,494; October—588,317; November—443,158; total, 5,765,349.

[b] Eastern Air Lines Jan.—Oct.

Domestic Territorial Lines—November 1937

Operator	Revenue miles	Revenue passengers	Revenue passenger-miles (000)	Express and freight (tons)	Ton-miles flown		Passenger seat-miles (000)	Revenue Passenger load factor (percent)
					Express	Freight		
Caribbean-Atlantic Airlines, Inc.	31, 207	5, 600	338	6. 1	0	433	749	45. 13
Hawaiian Airlines, Ltd.	218, 127	23, 529	3, 231	413. 0	10, 821	48, 352	4, 678	69. 07
Total	249, 334	29, 129	3, 569	419. 1	10, 821	48, 785	5, 427	65. 76

Scheduled Air Carrier Operations—Concluded

Domestic Feeder Lines—November 1947

Operator	Revenue miles	Revenue passengers	Revenue passenger-miles (000)	Express and freight (tons)	Ton-miles flown		Passenger seat-miles (000)	Revenue passenger load factor (percent)
					Express	Freight		
All American Aviation, Inc.	137,669	0	0	22.5	3,470	0	0	—
Challenger Airlines Co.	73,365	806	196	7.6	834	2,436	1,541	12.72
Empire Air Lines, Inc.	58,856	533	130	2.0	340	0	582	22.34
Florida Airways, Inc.	65,044	689	89	1.7	144	0	516	17.25
Monarch Air Lines, Inc.	105,269	1,434	295	28.0	738	5,706	1,892	15.59
Pioneer Air Lines, Inc.	202,846	5,686	1,432	8.0	1,474	865	4,890	29.28
Southwest Airways Co.	167,591	6,337	1,203	30.0	2,299	1,962	3,391	35.48
Trans-Texas Airways	68,592	424	85	.2	25	0	1,440	5.90
West Coast Airlines, Inc.	90,324	3,163	398	4.3	455	0	1,816	21.92
Total	969,556	19,072	3,828	104.3	9,779	10,969	16,068	23.82

International and Overseas Air Carriers—October 1947

Operator	Revenue miles	Revenue passengers	Revenue passenger-miles (000)	Express and freight (tons)	Ton-miles flown		Passenger seat-miles (000)	Revenue passenger load factor (percent)
					Express	Freight		
American Airlines, Inc.	249,260	7,223	5,501	298.0	0	121,549	9,167	60.01
American Overseas Airlines, Inc.	220,395	1,643	4,656	27.4	92,276	0	8,174	56.96
Chicago & Southern Air Lines, Inc.	41,100	827	566	11.0	0	7,271	1,336	42.37
Colonial Airlines, Inc.	54,361	1,013	792	.1	47	0	2,087	37.95
Eastern Air Lines, Inc.	60,060	1,235	1,236	5.7	0	9,112	3,344	36.96
National Airlines, Inc.	34,680	1,683	529	49.1	14,243	0	1,595	33.17
Northwest Airlines, Inc.	324,276	2,079	4,090	23.9	5,423	50,966	8,680	47.12
Pan American Airways, Inc.:								
Atlantic Division	1,272,456	12,004	33,490	131.2	512,482	0	45,981	72.83
Latin American Division	2,484,122	46,915	43,730	1,090.0	1,796,776	0	92,544	47.25
Alaska Operations	191,098	2,737	3,031	34.0	35,988	0	8,243	36.77
Pacific Operations	1,111,087	6,138	18,216	83.0	315,955	0	28,092	64.84
Pan American-Grace Airways, Inc.	480,858	9,277	9,019	195.0	138,638	0	14,507	62.17
Transcontinental & Western Air, Inc.	796,588	6,453	20,814	88.0	383,120	0	27,175	76.59
United Air Lines, Inc.	148,835	2,061	4,946	6.0	14,324	0	6,221	79.50
Uraba, Medellin & Central Airways, Inc.	19,925	262	87	11.0	3,775	0	384	22.66
Total	7,489,101	101,550	150,703	2,053.4	3,313,047	188,898	257,530	58.52

November Aircraft Shipments Far Behind October's Figures

Civil aircraft manufacturers shipped 615 planes valued at $12,080,000 during November, representing decreases of 23 percent in number and 46 percent in value from October's 802 planes and $22,303,000. Airframe weight fell 38 percent, from 1,600,000 to 1,000,000 pounds.

The combined value of both civil and military shipments was $54,742,000, a 29 percent decrease below the $77,283,000 reported in October. Of the $54,742,000 total, complete aircraft and parts represented $51,990,000. All other production, including conversion work, accounted for the remaining $2,751,000. Military business accounted for 74 percent of the $51,990,000 in aircraft and parts shipped.

November employment was 146,796 workers compared to 145,338 in October. Exports amounted to 219 aircraft valued at $13,126,000. This represented a sizeable increase both in number and value over the 184 aircraft valued at $5,439,000 exported in October. November exports represent the best month this year.

The November civil plane shipment figures show:

	November	*October*
Total	615	802
By number of places:		
2-place	245	390
3- and 4-place	328	364
Over 4-place	42	48
By number of engines:		
Single engine	594	770
Multi-engine	21	32
By total rated hp. (all engines):		
1-74 hp	63	102
75-99 hp	156	252
100-399 hp	374	415
400-3,999 hp	5	5
4,000 hp. and over	17	28

CAA and CAB Releases

Copies of CAA releases may be obtained from the CAA Office of Aviation Information. CAB releases are obtainable from the Public Information Section of the Board. Both offices are located in the Department of Commerce Building, Washington 25, D. C.

Administration

Aviation Education Continues Growth in U. S. Schools (Dec. 31).

CAA Grants $13,000,000 for construction of 127 Airports in 1947 (Jan. 2).

CAA Reports 30 States Have Issued Air Education Bulletins (Jan. 7).

"Facts of Flight," Third Book to Aid Private Flyers, Announced by CAA (Jan. 7).

Agreements Concluded for Civil Aviation Technical Missions to Three South American Countries (Jan. 8).

CAA Announces Booklet to Help Private Pilot Flying Over Strange Terrain (Jan. 7).

President's Budget Message, Summary of CAA Portion for Fiscal 1949 (Jan. 12).

CAA Adopts Distress Symbols for Ground-to-Air Communication (Jan. 27).

Board

Domestic Trunkline Operating Statistics for September 1947 (Dec. 19).

TWA-Delta Equipment Interchange Agreement (Dec. 30).

Financial Statistics, Domestic Trunkline, third quarter 1947 (CAB-48-1).

British South American Airways Corp. Foreign Permit (CAB-48-2).

British Overseas Airways Corp. Foreign Permit (CAB-48-3).

Coastal Airlines Accident Hearing (CAB-48-4).

Irish Airlines Foreign Permit (CAB-48-5).

Certificate Transfer, Petersburg Air Service to Alaska Island Airlines (CAB-48-6).

Engine Manufacturers Report Decrease in November Output

Engine manufacturers reported a combined output of $23,636,000 for November, 21 percent less than in October. Military business represented 83 percent of the month's total.

Civil shipments in November totaled 819 engines valued at $2,107,000 plus $1,759,000 in spare parts as compared with shipment of 696 engines worth $4,510,000 and $2,082,000 in spares for October. At the end of November, manufacturers reported they had a backlog of 20,249 engines valued at $29,538,000, a decrease of 23 percent in number and 16 percent in value from the October 31 figures of 26,274 engines and $34,954,000.

Shipments to the United States military services totaled 409 engines valued at $16,175,000 plus $3,481,000 in spares. The comparable October figures were 471 engines worth $18,783,000 and $4,190,000 in spares. On November 30, manufacturers reported that they expected receipts from the military services during the next six months would total $156,510,000.

Equipment Interchange Approved

The Civil Aeronautics Board has approved an equipment interchange agreement between Transcontinental & Western Air and Delta Air Lines which will permit north-south travel over the two systems from Detroit to Miami without changing planes at Cincinnati, Ohio.

Delta provides air service from Cincinnati and Atlanta to a network of cities in the South and Southeast. TWA has a route from Detroit to Cincinnati, through Toledo and Dayton.

Since May 1941, the two airlines have maintained connecting services at Cincinnati for travel between the Great Lakes area and Southern cities.

Regulations

Amdt. 09–1 ..... Effective January 31, 1948

Amend section 09.20 of Part 09 by deleting the date "January 31, 1948," and substituting the date "August 31, 1948."

(This amendment allows an additional 8 months for issuing limited airworthiness certificates to war surplus planes, since the sale of these planes will continue until June 30, 1948.)

Airline Orders

E–1064 institutes a proceeding to determine whether the public convenience and necessity require that the amended certificate for Braniff's route 9 should be altered, modified, or amended to include a restriction against the operation of nonstop services between any or all of the following pairs of points: (a) Lubbock-Austin; (b) Amarillo-Austin; (c) Amarillo-Houston; and (d) Lubbock-Houston, Tex. Makes Braniff and Pioneer parties to this proceeding. (Dec. 17)

E–1065 approves an agreement between United Air Lines and Monarch Air Lines, relating to the performance of reservation services for Monarch at Denver. (Dec. 17)

E–1066 institutes an investigation concerning rates and charges established, demanded and charged by PCA for freight transportation, pursuant to Airfreight Tariff No. 5, CAB No. 9; consolidates the proceeding with Docket 1705 et al. (Dec. 17)

E–1067 dismisses applications of E. I. Whyatt, et al., for approval of interlocking relationships (Dec. 17).

E–1068 fixes rates of compensation to be paid to All American Aviation for mail transportation over route 49 (issued with an opinion—Dec. 17).

E–1069 terminates suspension of letter of registration 597 issued on July 28, 1947, to Central Flying Service (Dec. 19).

E–1070 denies Pan American Airways' petition for reconsideration of Board order E–894, which disapproved the applications of John W. Hanes and Pan American, for approval of interlocking relationships (Dec. 19).

E–1071 denies petition of United States Lines Co. for a rehearing of a Board order which disapproved an agreement between Pan American Airways and U. S. Lines Co., relating to general agency and other matters (Dec. 19).

E–1072 fixes the mail rate compensation for Continental Air Lines by the application of a sliding scale rate formula (issued with an opinion—Dec. 19).

E–1073 amends certificate of Pan American Airways so as to eliminates Tanacross, Alaska, and Burwash Landing, Yukon, Territory, Canada, as intermediate points between Fairbanks, Alaska, and Seattle, Wash. (issued with an opinion—Nov. 14).

E–1074 orders that certain documents filed in the proceeding concerning Pan American Airways' compensation for mail transportation over its Latin American routes be withheld from public disclosure because they contain secret information affecting national defense (Dec. 22).

E–1075 denies motion of Bessie Memberg, dba Jetsonic Airlanes, requesting the Board to vacate its order E–827 (Dec. 22).

E–1076 orders that an investigation be instituted to determine whether the rates and charges contained in U. S. Airlines' Airfreight Tariff No. 1, CAB No. 1, are unjust; consolidates this proceeding with the consolidated proceeding in Docket 1705, et al. (Dec. 23).

E–1077 temporarily exempts Northern Consolidated Airlines, Ray Petersen Flying Service, Northern Airways, Walatka Air Service, and Northern Air service from certain provisions of the Civil Aeronautics Act insofar as they would prevent Northern Consolidated, in lieu of the other companies, from temporarily performing service which the others are authorized to perform under certificates issued pursuant to order 2062 and exemption orders 3808, 4267 and 4390; exemption to remain in effect until the issuance of final Board order in Docket 2209, et al. (Dec. 23).

E–1078 dismisses application of United Air Lines, Docket 2623, without prejudice (Dec. 24).

E–1079 institutes an investigation of rates and charges established, demanded and charged by Transcontinental & Western Air, United Air Lines and Monarch Air Lines for freight transportation pursuant to certain tariffs filed with the Board by the aforementioned airlines; consolidates this proceeding (Docket 3230) with the consolidated proceeding in Docket 1705, et al. (Dec. 26).

E–1080 dismisses application of Southwestern Freight Lines—Docket 2357—for a certificate (Dec. 29).

E–1081 dismisses application of Transcontinental & Western Air—Docket 1840—for a certificate (Dec. 29).

E–1082 approves agreements 1271, 1314, 1318, 1328, 1329, and 1348 between certain U. S. and foreign air carriers relating to interline ticketing and baggage arrangements (Dec. 29).

E–1083 denies Eastern Air Lines' petition for reconsideration of Board order E–857, which denied its motion for consolidation for hearing and decision, or, in the alternative, for prompt hearing and concurrent consideration of its application in Docket 2578, proposing service to points in Florida and adjacent states, with Florida Airways' application in the Additional Service to Florida Case—Docket 1668, et al. (Dec. 29).

E–1084 approves an agreement dated June 13, 1946, between Delta Air Lines and Transcontinental and Western Air relating to the interchange of equipment (issued with an opinion—Dec. 29).

E–1085 reopens the Mississippi Valley Case—Docket 548, et al.—for the sole purpose of reissuing an amended certificate for route 26 to Mid-Continent Airlines (Dec. 31).

E–1086 approves an agreement—No. 1041—between All American Aviation and sixteen other air carriers relating to the establishment of Air Cargo; denies petition of the Brotherhood of Railway Clerks (Dec. 31).

E–1087 amends Board orders 4926 and E–198 so as to extend the temporary exemption granted to TWA by these orders until December 31, 1948 (Dec. 31).

E–1088 denies petition of Trans-Pacific Airlines requesting that the Board reconsider its order E–872 which denied Trans-Pacific an exemption from the provisions of section 401 of the Act (Dec. 31).

E–1089 approves steps taken to consummate the consolidation of Ray Petersen Flying Service, Northern Airways, Walatka Air Service, and Northern Air Service into Northern Consolidated Airlines (Dec. 31).

E–1090 grants petitions of Kentucky Aeronautics Commission, American Newspaper Publishers Association, Postmaster General, Railway Express Agency, and the Indiana State Chamber of Commerce, for leave to intervene in the Air Freight Rate Case—Docket 1705, et al. (Jan. 2).

E–1091 denies petition of Penn-Central for leave to intervene in the Chicago Helicopter Service Case—Docket 2384, et al. (Dec. 31).

E–1092 authorizes Florida Airways to omit St. Augustine, Fla., as a stop on one southbound night flight of a third daily round trip schedule over segment 1 of route 75 until such time as the airport becomes suitable for night operations (Jan. 2).

E–1093 orders Alaska Airlines to cease and desist from engaging in transportation of persons on a common carrier basis, between points in Alaska and in the Continental U. S. (Jan. 2).

E–1094 permits Trans-Texas Airways to inaugurate service at Del Rio, Tex., on January 15, through the use of Val Verde County Airport (Jan. 5).

E–1095 permits Chicago & Southern Air Lines to serve Hot Springs, Ark., on January 9, through the use of Hot Springs Memorial Airport (Jan. 5).

E–1096 amends temporary rate order E–510 concerning compensation to be paid Chicago & Southern for mail transportation over routes 8 and 53 (Jan. 5).

E–1097 reopens proceeding (order E–556) to determine whether the public convenience and necessity requires the retention, modification or elimination of the restriction pertaining to operational stops, which shall not be made except in emergency, at any point not named between the two terminals of such flight authorized in the certificates of TWA, American and United; permits Air Transport Association of America and all certificated air carriers to participate, amicus curiae, in the reargument (Jan. 5).

E–1098 amends orders E–738 by fixing the temporary rate of compensation to be paid Pan American Airways for the transportation of mail over its Latin American routes, for the period March 1, 1944 through August 31, 1945, at $3,219,855; provides that this proceeding remain open pending entry of an order fixing a final rate for said period (Jan. 5).

E–1099 dismisses complaint of Greensboro-High Point Airport Authority against Eastern Air Lines (Jan. 5).

E–1100 dismisses motion of public counsel to dismiss the petition of United Airlines for an order fixing the rate of compensation for mail transportation over routes 1, 17, and 57 (Jan. 5).

E–1101 dismisses application of Colorado Aviation Co. for a certificate (Jan. 6).

E–1102 dismisses application of Air Activities, Inc.—Docket 47–401–E–1, for want of prosecution (Jan. 6).

E–1103 dismisses application of Leech Aircraft, Inc., for a certificate (Jan. 6).

E–1104 directs Alaska Coastal Airlines to show cause why the Board should not fix the temporary mail rate to be paid for mail transportation on and after September 22, 1947, as follows: (*a*) for each month during which the average daily designated mileage does not exceed 919 miles, a base rate of 45 cents per plane mile, to be paid without reference to base poundage; and (*b*) for each month during which the average daily designated mileage exceeds 919 miles, an effective rate per plane mile which bears the same relation to 45 cents per plane mile as 919 miles bear to the average daily designated mileage, said rate to be paid without reference to base poundage. Proceeding is to remain open pending entry of an order fixing a final rate (Jan. 5).

E–1105 directs Transocean Air Lines to show cause why its Letter of Registration 803 should not be revoked for knowing and wilful violation of the Civil Aeronautics Act (Jan. 6).

E–1106 denies petition of Eastern Air Lines except to the extent granted by Board order E–1025 (Jan. 6).

E–1107 permits Pioneer Air Lines to intervene in the Continental Route Consolidation Case—Docket 576, et al. (Jan. 7).

E–1108 authorizes Southwest Airways Co. to suspend service temporarily on schedules requiring night operations at Coalinga and San Luis Obispo, Calif., only so long as Southwest Airways continues to provide a minimum service of two daily round trip schedules at the two cities (Jan. 7).

E–1109 directs Colonial Airlines to show cause why the Board should not make final the findings and conclusions in the Statement attached to the order, and upon the basis thereof, fix the rates of compensation to be paid Colonial for mail transportation over its routes between New York and Bermuda and Washington and Bermuda (Jan. 5).

E–1110 denies motion of Chicago and Southern Air Lines, insofar as it attacks the legal power of the Board to reopen the Kansas City-Memphis-Florida Case; assigns motion for oral argument insofar as it requests the Board to set aside the temporary stay of the amended certificate for route 8 issued to Chicago and Southern (Order E–869)—such oral argument to be held at the same time and place as the reargument granted by Board order E–1025 (Jan. 6).

E–1111 dismisses application of Air Travel, Inc. for a certificate (Jan. 8).

E–1112 dismisses application of Air Services for a certificate (Jan. 8).

E–1113 permits Dade County Port Authority and the Greater Miami Traffic Assn. leave to intervene in the Kansas City-Memphis-Florida Case (Jan. 8).

E–1114 dismisses, for want of prosecution, the application of Flight Corp. (Jan. 9).

E–1115 institutes an investigation of certain Tariff Rules filed on behalf of British Overseas Airways Corp., Eastern Air Lines, KLM Royal Dutch Airlines, Matson Navigation Co., and Philippine Air Lines—Docket 3247—providing for free or reduced-rate transportation for group travel, tour conductors, travel agents, students, government employees, and others; consolidates proceeding instituted by the Board in Dockets 2737, 3009, 3010, and 3085, together with the proceeding of investigation, into a proceeding entitled The Free and Reduced-Rate Transportation Case—Docket 2737, et al. (Dec. 29).

E–1116 grants Empire Air Lines' application for authority to change the service pattern on route 78; revokes orders E–330 and E–723 (Jan. 13).

E–1117 orders that British South American Airways Corp. be issued a foreign air carrier permit authorizing transportation of persons, property and mail between the teminal point Jamaica, British West Indies, the intermediate points, Nassau, Bahama Islands, and Bermuda, and the terminal point Miami, Fla. (issued with an opinion—Dec. 29).

E–1118 dismisses application of United Air Lines—Docket 1021—for a certificate (Jan. 14).

E–1119 denies petition of Peninsula Airport Commission of the Commonwealth of Virginia to intervene in The Middle Atlantic Area Case—Docket 674, et al. (Jan. 14).

E–1120 dismisses, for want of prosecution, application of Richard C. Kugel—Docket 1513—for a certificate (Jan. 14).

E–1121 dismisses applications of American Airlines—Dockets 1868 and 2632 for a certificate (Jan. 14).

E–1122 amends foreign air carrier permit issued to British Overseas Airways Corp. pursuant to Board order 1150, so that Part I will authorize British Overseas to continue to engage in foreign transportation between a terminal point in the U. S. and Bermuda and Part II of the amended permit will authorize British Overseas to engage in foreign transportation of persons, property and mail beteen the coterminal points Baltimore, Md., Washington, D. C., and New York, N. Y., and the terminal point Bermuda (issued with an opinion—Jan. 13).

E–1123 orders that an amended certificate be issued to Eastern Air Lines for route 10 (Jan. 13).

E–1124 dismisses application of Fish Airlines Corp.—Docket 1359—for a certificate (Jan. 15).

E–1125 authorizes Monarch Air Lines to omit Gallup, N. Mex., as a stop on its last daily southbound flight over segment No. 2 of route 73, until such time as the airport at Gallup becomes suitable for night operations or until April 1, 1948, whichever occurs first; provides that Monarch shall continue to serve Gallup on at least one daily southbound and two daily northbound flights (Jan. 16).

E–1126 amends foreign air carrier permit issued to Linea Aeropostal Venezolana pursuant to Order 5165, by extending its effectiveness for 3 months from January 17, 1948; provides that if during the term of the permit the transportation authorized becomes the subject of any treaty, convention or agreement to which the U. S. and Venezuela become parties, the permit shall continue in effect during the period provided in such treaty, convention or agreement (issued with an opinion—Dec. 31).

E–1127 grants petitions of Freight Forwarders Institute, Acme Air Express, Cleveland C. of C., and Greater Miami Traffic Assn. for leave to intervene in the Air Freight Rate Case—Docket 1705, et al. (Jan. 19).

E–1128 temporarily exempts Northwest Airlines, for 90 days, from the restriction contained in its certificate which prohibits Northwest from scheduling flights between Great Falls and Billings, Mont., on route 3 (Jan. 19).

E–1129 denies petition of Bruning Aviation—Docket 3240—for a special exemption from the provisions of section 292.5 of the Board's Economic Regulations (Jan. 19).

Airman Orders

Suspensions

S–136 reduces the suspension of Frank T. Reinisch to 30 days (Jan. 5).

S–138 reduces the suspension of Allen G. Mills to 60 days (Jan. 9).

SD–631 suspends pilot certificate of Richard I. Tuttle for 6 months. While the holder of a student certificate Tuttle carried a passenger. In view of the fact that Tuttle has since acquired a private certificate, has piloted aircraft for more than one year since the violation without incident, and has shown a penitent and cooperative attitude, the Board felt that a revocation of his certificate at this time would not accomplish the desired result (Dec. 5).

SD–632 suspends for 6 months, private certificate of Richard E. Elbert, because he piloted an aircraft in the vicinity of Goodland, Ind., at an altitude of 150 to 200 feet over farm buildings, which action resulted in a crash (Dec. 4).

SD–634 suspends for 6 months, temporary student certificate of Paul A. Pernock, for low flying over a congested area of El Paso, Tex., and operating an aircraft within the El Paso Municipal Airport control area, contrary to traffic control instructions (Nov. 29).

SD–635 suspends for 6 months, airman certificate with commercial

rating of John C. Hutchens, for low aerobatic flying over Des Moines, Iowa (Dec. 2).

SD-636 suspends for 30 days airman certificate with commercial rating of E. Lee Shrum, for low flying over Cody, Wyo. (Dec. 2).

SD-639 suspends for 30 days, student certificate of Wylie L. Boyd, for operating an aircraft so as to endanger the property of others, in that he started the engine when no one was at the controls. The craft collided with a fence (Nov. 26).

SD-640 suspends for 90 days, commercial certificate of Richard E. Poet, for executing aerobatic maneuvers within 25 to 50 feet of people standing on the Sky Haven Airport, Brooks, Oreg. Neither Poet nor his passenger were equipped with parachutes (Nov. 13).

SD-641 suspends for 30 days, airman certificate with commercial airplane single-engine land ratings of Myron G. Barre, Jr., because he piloted an aircraft in the vicinity of Greenup, Ill., in a careless manner so as to endanger the property of others (Dec. 5).

SD-642 suspends for 3 months, airman certificate with private rating of Geo. S. Block, for piloting an aircraft over the congested area of Paducah, Ky., at 400 feet (Dec. 5).

SD-645 suspends for 6 months, student certificate of DeWitt Morgan, for low aerobatic flying at altitudes of from 700 to 200 feet over Portland, Oreg. (Nov. 29).

SD-647 suspends for 60 days, student certificate of Clark F. Erickson, for piloting an aircraft recklessly in that he executed a series of low wingovers in the traffic pattern of Paine Field, Everett, Wash. (Nov. 29).

SD-648 suspends for 30 days, aircraft and engine mechanic certificate of Keith D. Thomas, for replacing the left landing gear as a unit on an aircraft in a careless and unworkmanlike manner in that he failed to observe that the safety bolt for the landing gear was missing and returned the craft to service (Nov. 18).

SD-649 suspends for 60 days, airman certificate with commercial rating of Prescott Wilburne Pitts, for flying at less than 1,000 feet in the vicinity of Brownwood, Tex. (Dec. 12).

SD-650 suspends for 9 months, commercial certificate of Vern L. Farrow, for flying at from 200 to 250 feet over Seattle, Wash. (Nov. 17).

SD-652 suspends for 6 months, student certificate of Frank Burbridge Lacy, III, for flying at approximately 100 feet which was hazardous to persons and property on the ground (Dec. 12).

SD-653 suspends, for 6 months, pilot certificate of Howard H. Gast. While the holder of a student certificate, Gast piloted an aircraft while carrying a passenger and endangered lives and property by careless flying. However, since 18 months has elapsed since the violation and since Gast has acquired a private certificate and there is no report of other violations, the examiner felt that the fixed policy of the Board to revoke the certificate of a student pilot for carrying a passenger would "represent an unenlightened policy of punishment not contemplated by the Civil Aeronautics Act, or the Board itself" (Dec. 11).

SD-654 suspends, for 6 months, student certificate of Donald E. Lynch, for low flying in the vicinity of Tacoma, Wash. (Nov. 29).

SD-655 suspends, for 3 months, student certificate of Ralph J. Shoenecker, for flying out of a local practice without having his student certificate endorsed for cross-country flight (Dec. 16).

SD-661 suspends, for 4 months, airman certificate with private pilot and airplane single-engine land ratings of Wm. Tosheff, for piloting an aircraft at 300 feet over the congested residential area of Gary, Ind. (Dec. 16).

SD-663 suspends, for 20 days, commercial certificate of James H. Griggs, for flying at less than 500 feet (Dec. 26).

SD-664 suspends, for 4 months, airman certificate with commercial pilot rating of Charles L. Ogg, for low flying over the cities of Athens and Guysville, Ohio (Nov. 13).

SD-665 suspends, for 60 days, any pilot certificate held by Robert C. C. Heaney (Dec. 22).

SD-668 suspends, for 6 months, and thereafter until he passes the written exams. required for solo flights, the student certificate of William Gates, for low flying over the city of Bexley, Ohio, and operating an aircraft outside the practice area (Dec. 31).

SD-669 suspends, for 6 months, and thereafter until he passes the written exam. required for solo flight, the student certificate of George Estrate, for carrying an uncertificated passenger. Although it is the policy of the Board to impose penalties of revocation in cases of passenger-carrying by student pilots, the examiner felt that the delay of over a year in the case, coupled with the fact that Estrate may have believed that his passenger, a prospective purchaser of the plane, was a crew member and not a passenger (Dec. 31).

Miscellaneous

SD-644 dismisses complaint of the Administrator of Civil Aeronautics concerning Frank J. Ellersick (Nov. 27).

SD-651 dismisses complaint of the Administrator of Civil Aeronautics concerning Tony Psyhogios (Dec. 12).

SD-660 dismisses complaint of the Administrator of Civil Aeronautics concerning Olen Webb (Dec. 16).

SD-666 orders that the Administrator of Civil Aeronautics re-issue to James L. Buford an airman certificate with commercial rating and all other ratings held by him on June 28, 1944 without his having to take a written exam on any parts of the Civil Air Regulations; provides that Buford satisfactorily complete a flight test within 1 year from January 6 (Jan. 6).

Revocations

S-137 revokes any pilot certificate held by George R. McColley (Jan. 7).

SD-633 revokes any pilot certificate held by John M. Schaufler because, while the holder of a student certificate, he carried a passenger (Dec. 3).

SD-637 revokes student certificate of Sidney F. Plummer, for carrying a passenger (Nov. 14).

Air Regulations . *on February 1, 1948*

Title	No.	Part: Price	Part: Date	Part: No. of Amendments	Manual: Price	Manual: Date	Manual: No. of Amendments
Aircraft							
Airworthiness Certificates	01	$0.05	10/15/42	3	None	None	.....
Type and Production Certificates	02	.05	7/1/46	1	$0.10	8/1/46	.....
Airplane Airworthiness—Normal, Utility, Acrobatic, and Restricted Purpose Categories	[1] 03	.25	12/15/46	3	None	None	.....
Airplane Airworthiness	04a	.25	11/1/47	1	.75	7/1/44	2
Airplane Airworthiness Transport Categories	[1] 04b	Free	11/9/45	8	None	None	.....
Rotorcraft Airworthiness	06	.10	5/24/46	1	None	None	.....
Aircraft Airworthiness, Limited Category	09	.05	11/21/46	1	None	None	.....
Engine Airworthiness	13	.05	8/1/41	.....	None	None	.....
Propeller Airworthiness	14	.05	7/15/42	1	.15	5/1/46	.....
Equipment Airworthiness	15	.05	5/31/46	.....	None	None	.....
Radio Equipment Airworthiness	16	.05	2/13/41	.....	Free	2/13/41	1
Maintenance, Repair, and Alteration of Aircraft, Engines, Propellors, Instruments	18	.05	9/1/42	.....	.60	6/1/43	.....
Airmen							
Pilot Certificates	20	.05	7/1/45	8	None	None	.....
Airline Pilot Rating	21	.05	10/1/42	4	None	None	.....
Lighter-than-air Pilot Certificates	22	.05	10/15/42	2	None	None	.....
Mechanic Certificates	24	.05	7/1/43	[2] 2	None	None	.....
Parachute Technician Certificates	25	.05	12/15/43	4	None	None	.....
Traffic Control Tower Operator Certificates	26	.05	10/10/45	2	None	None	.....
Aircraft Dispatcher Certificates	27	.05	7/1/46	1	None	None	.....
Physical Standards for Airmen	29	.05	1/10/46	.....	None	None	.....
Flight Radio Operator Certificates	33	.05	8/1/47	.....	None	None	.....
Flight Navigator Certificates	34	.05	8/1/47	.....	None	None	.....
Flight Engineer Certificates	35	.05	3/15/47	.....	None	None	.....
Operation Rules							
Air Carrier Operating Certification	40	.10	7/10/46	[3] 1	None	None	.....
Scheduled Air Carrier Operations Outside Continental United States	41	.05	5/1/46	[4] 15	None	None	.....
Nonscheduled Air Carrier Certification and Operation Rules	42	.05	8/1/46	[5] 6	.15	11/1/46	.....
General Operation Rules	43	.05	12/1/47	.....	None	None	.....
Foreign Air Carrier Regulations	44	.05	11/1/47	.....	None	None	.....
Operation of Moored Balloons	48	.05	9/28/47	.....	None	None	.....
Transportation of Explosives and other Dangerous Articles	49	.05	7/1/45	.....	None	None	.....
Air Agencies							
Airman Agency Certificates	50	.05	4/30/46	.....	.15	5/15/46	2
Ground Instructor Rating	51	.05	12/15/43	2	None	None	.....
Repair Station Rating	52	.05	10/1/42	.....	No stock	2/41	.....
Mechanic School Rating	53	.05	8/1/42	1	Free	5/40	.....
Parachute Loft Certificates and Ratings	54	.05	1/21/43	.....	None	None	.....
Air Navigation							
Air Traffic Rules	60	.10	10/8/47	.....	[7]	.....	.....
Scheduled Air Carrier Rules	61	.10	8/1/46	[6] 12	None	None	.....
Miscellaneous							
Rules of Practice Governing Suspension and Revocation Proceedings	97	Free	1/1/47	1	None	None	.....
Definitions	98	No stock	10/15/42	.....	None	None	.....
Mode of Citation	99	Free	11/15/40	.....	None	None	.....
Regulations of the Administrator							
Aircraft Registration Certificates	501	Free	5/1/47	.....	.....	.....	.....
Dealers' Registration Certificates	502	Free	5/1/47	.....	.....	.....	.....
Recordation of Aircraft Ownership	503	Free	5/1/47	.....	.....	.....	.....
Notice of Construction or Alteration of Structures on or near Civil Airways	525	Free	7/23/43	1	.....	.....	.....
Seizure of Aircraft	531	Free	12/8/41	.....	.....	.....	.....
Reproduction and Dissemination of Current Examination Materials	532	Free	1/15/43	.....	.....	.....	.....
Federal Aid to Public Agencies for Development of Public Airports	550	Free	1/9/47		1 thru 8. In Federal Register, vol. 12, Nos. 74, 92, 112, 122, 161, 187, 198. Total cost, $1.05.		
Acquisition by Public Agencies for Public Airport Purposes of Land Owned or Controlled by the United States	555	Free	1/9/47		1. In Federal Register, vol. 12, No. 37. 15¢.		
Claims for Reimbursement for Rehabilitation or Repair of Public Airports Damaged by Federal Agencies	560	Free	1/9/47	.....	.....	.....	.....

[1] Certain aircraft may comply with the provisions of this part or part 04a.
[2] Special regulations 340 and 340D.
[3] Special regulations 361A, 361D, 396.
[4] Special regulations 385, 390, 390B, 403, 397, 397A, 399.
[5] 385, 390, 390B, 403.
[6] Special regulations 361A, 361D, 385, 390, 390B, 397, 397A, 399.
[7] Combined with Flight Information Manual.

NOTE: Those parts and manuals for which there is a price are obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Remittances should be by check or money order, payable to the Superintendent. Currency is sent at sender's risk. Amendments, Special Regulations and free Parts are obtained from the Publications Section, Civil Aeronautics Board, Washington 25, D. C.; free Manuals and Regulations of the Administrator from the CAA Office of Aviation Information, Dept. of Commerce, Washington 25, D. C.

SD-638 revokes student certificate of Philip Smookler, for carrying a passenger (Nov. 14).

SD-643 revokes student certificate of Robert E. Wallis, for low flying over a boat and bathers at Lake Mead, Nev., and for carrying a passenger (Nov. 18).

SD-646 revokes student certificate of Jack S. Laugheed, for carrying a passenger (Nov. 26).

SD-656 revokes student certificate of Robert E. Nye, for low flying over Indianapolis, Ind., and piloting an aircraft outside the local area designated by his instructor (Dec. 17).

SD-657 revokes student certificate of Clark Bentley, for carrying a passenger (Nov. 29).

SD-658 revokes student certificate of Jack D. Geudtner, for carrying a passenger (Dec. 17).

SD-659 revokes temporary student certificate of Charles R. Lee, 16, for piloting an aircraft at less than 500 feet in the vicinity of Ogallala, Nebr. Lee's application for a student certificate was not accompanied by the written consent of either parent or legal or natural guardian (Dec. 17).

SD-662 revokes student certificate of Francis E. Spangler, because he carried a passenger and operated an aircraft in such a careless and reckless manner that he crashed into a tree causing the death of his passenger and demolishment of the aircraft (Dec. 16).

SD-667 revokes student certificate of Earl W. Sparks, for carrying a passenger (Dec. 30).

CAA-Sponsored Survey Concludes Agreements With 3 Latin Nations

Cooperative agreements with three South American countries for civil aviation technical assistance missions from the United States were concluded by a Civil Aeronautics Administration sponsored survey mission which recently returned from a 17,000-mile air trip through 10 countries.

Included in the mission were representatives of the CAA, the Department of State, the Coast and Geodetic Survey, the Weather Bureau, the Office of Business Economics, and the Office of the Secretary, Department of Commerce.

Official notes between the United States Ambassadors and the Foreign Ministers of Colombia, Ecuador, and Bolivia concluded the agreements for missions which will serve in an advisory capacity for periods of approximately 6 months to a year on specialized civil aviation problems. Negotiations for similar agreements with Uruguay, Chile and Venezuela are in advanced stages.

The mission was initiated by the International Services Division, Staff Programs Office, CAA, and was headed by Theodore C. Uebel of that division.

The mission visited the various civil aeronautics organizations, renewed associations with national aeronautics officials who had recently studied U. S. Government and commercial systems, and made arrangements for visits of other local leaders to this country for the same purpose.

Want Advice and Assistance.—"Every country we visited expressed a need of advice and assistance in one or more phases of civil aviation," Uebel reported. "These countries are most eager to obtain technical assistance. Air transportation in most of the countries in the southern continent, especially on the west coast, is a political, economic, and social necessity. It has no attributes of luxury transportation. Its importance to the internal well-being of these countries cannot be overemphasized.

"We found graduates of the various CAA Inter-American training programs everywhere, many of them serving their countries in important posts. Many also are serving as instructors to their fellow-countrymen. We found, however, that many of the nations need the services of aviation economists, and that capable men with economic background such as is obtained in the Civil Aeronautics Board would be most welcome."

"We encountered airline operations of all kinds," James Kukla, flight operations specialist of the Office of Safety Regulation, CAA, who piloted the survey plane, said. "These ranged from nearly perfect operations down to some reminiscent of United States barnstorming days. It was most comforting to hear a tower operator trained in modern methods, and it was most disconcerting to have poor, or no assistance, from traffic towers. In air traffic alone, there is nothing at many places to keep two planes from being in the same cloud at the same time."

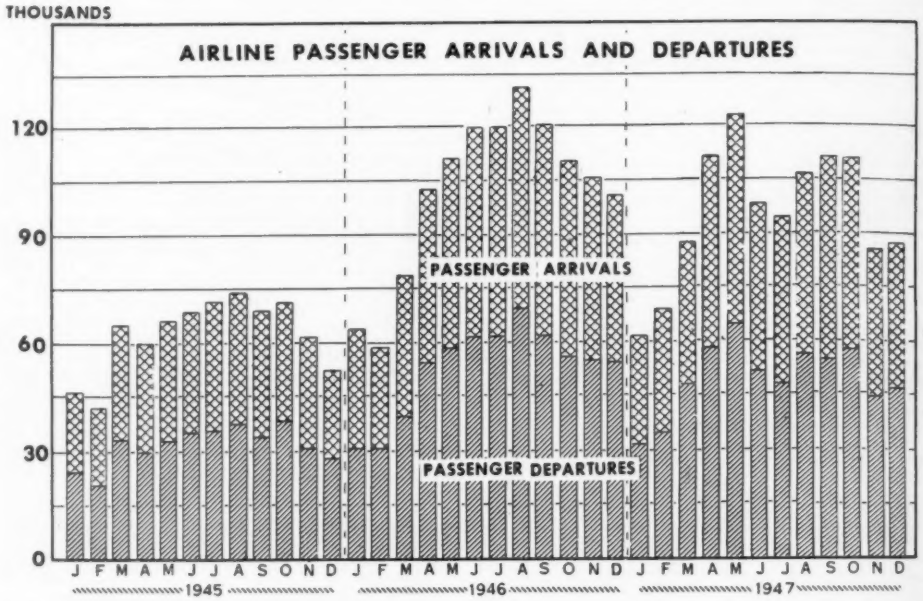
Promote Standardization.—"The opportunity is at hand for cooperative fellow-up of the training activities already conducted," Jess D. Green, Chief of the CAA's Foreign Nationals Training Division, said, "and this will help promote the adoption of international (ICAO) standards, to which the United States is committed throughout the Latin American area."

M. Cooper Walker, of the Aviation Division of the State Department, who accompanied the mission, said the proposed missions will have a tremendous effect on standardizing procedures and equipment, and thus contribute to the safety of our air carriers operating abroad, and the marketing of our aviation products.

Any such standardization also will have its effect on hemispheric solidarity in the matter of defense, he said.

Other members of the survey party were: Albert D. McClellan, cartographer, Coast and Geodetic Survey; George F. Brewster, meteorologist, Weather Bureau; Milton Gilbert, Chief, National Income Division, Office of Business Economics; and J. Clayton Miller, coordinator, International Cooperation Programs, Office of the Secretary, Department of Commerce.

WNA Passenger Traffic in 1947 Decreases 7% From Previous Year


THOUSANDS
AIRLINE PASSENGER ARRIVALS AND DEPARTURES
120
90
60
30
0
PASSENGER ARRIVALS
PASSENGER DEPARTURES
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1945
1946
1947

Airline travel (passenger arrivals and departures) at Washington National Airport during 1947 was only 7 percent below the record 1946 level. Total traffic for 1947 was 1,140,945 passengers, compared to 1,230,480 for the previous year. Airline passenger business started off ambitiously. For several months early in 1947, traffic exceeded the same months of 1946, but volume slipped a bit in midsummer and never again was quite able to hit the 1946 pace.

Aircraft arrivals and departures totaled 159,690 for 1947 compared to 180,690 for 1946. The air carrier portion of these figures was nearly identical each year at 105,200. Military and local traffic each showed sizable decreases—52 and 30 percent, respectively. Itinerant traffic alone increased over 1946 and advanced 18 percent.

The detailed record of passenger and aircraft activity at the Washington National Airport during 1947 follows:

Airline Passenger Traffic

Month	Departing	Arriving	Total
January	32,885	29,959	62,844
February	35,010	33,101	68,111
March	47,153	40,478	87,631
April	57,155	51,765	108,920
May	63,545	57,959	121,504
June	51,653	46,297	97,950
July	48,840	45,400	94,240
August	55,116	50,889	106,005
September	54,667	55,889	110,556
October	57,303	53,016	110,319
November	43,993	41,231	85,224
December	46,061	41,580	87,641
Total	593,381	547,564	1,140,945
Daily Average	1,626	1,500	3,126

Aircraft Arrivals and Departures

Month	Air Carrier	Military	Itinerant	Local	Total
January	7,123	1,365	1,307	1,412	11,207
February	7,613	1,403	1,368	1,200	11,584
March	8,342	1,350	1,765	1,722	13,179
April	8,876	1,417	2,135	2,350	14,778
May	9,899	1,429	2,239	1,988	15,555
June	9,809	1,451	2,144	1,909	15,313
July	9,796	1,354	1,738	1,471	14,359
August	9,581	1,297	1,798	1,540	14,216
September	9,114	1,304	1,902	1,118	13,438
October	9,106	1,244	2,071	1,218	13,639
November	7,950	1,066	1,532	766	11,314
December	8,015	1,114	1,349	630	11,108
Total	105,224	15,794	21,348	17,324	159,690
Daily Average	288	43	58	47	438

Safety Bulletin on Illegal Buzzing

The hazards of illegal buzzing are pointed out by the Safety Bureau of the Civil Aeronautics Board in its latest Safety Bulletin. Entitled "Buzzing—Jail Bait!", Safety Bulletin No. 179–47 costs 5 cents and is for sale by the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C.

CAB Issues Permit to BSAAC

British South American Airways Corp. has been issued a foreign air carrier permit by the Civil Aeronautics Board for the transportation of persons, property, and mail between Jamaica, British West Indies, and Miami, Florida, via the intermediate points Nassau, Bahama Islands, and Bermuda. The Board's decision was approved by President Truman on January 13, 1948.

The Board said that the operation of the air transport service authorized in its decision is subject to the terms of a reciprocal air transport agreement between the United States and the United Kingdom of Great Britain and Northern Ireland.

BSA now operates from London to points in the Caribbean, South America, Bermuda, the west coast of Africa, and in addition a local service between Caribbean points and points in the northern part of South America. It proposes to operate three round-trips weekly between Jamaica and Miami, via Nassau.

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